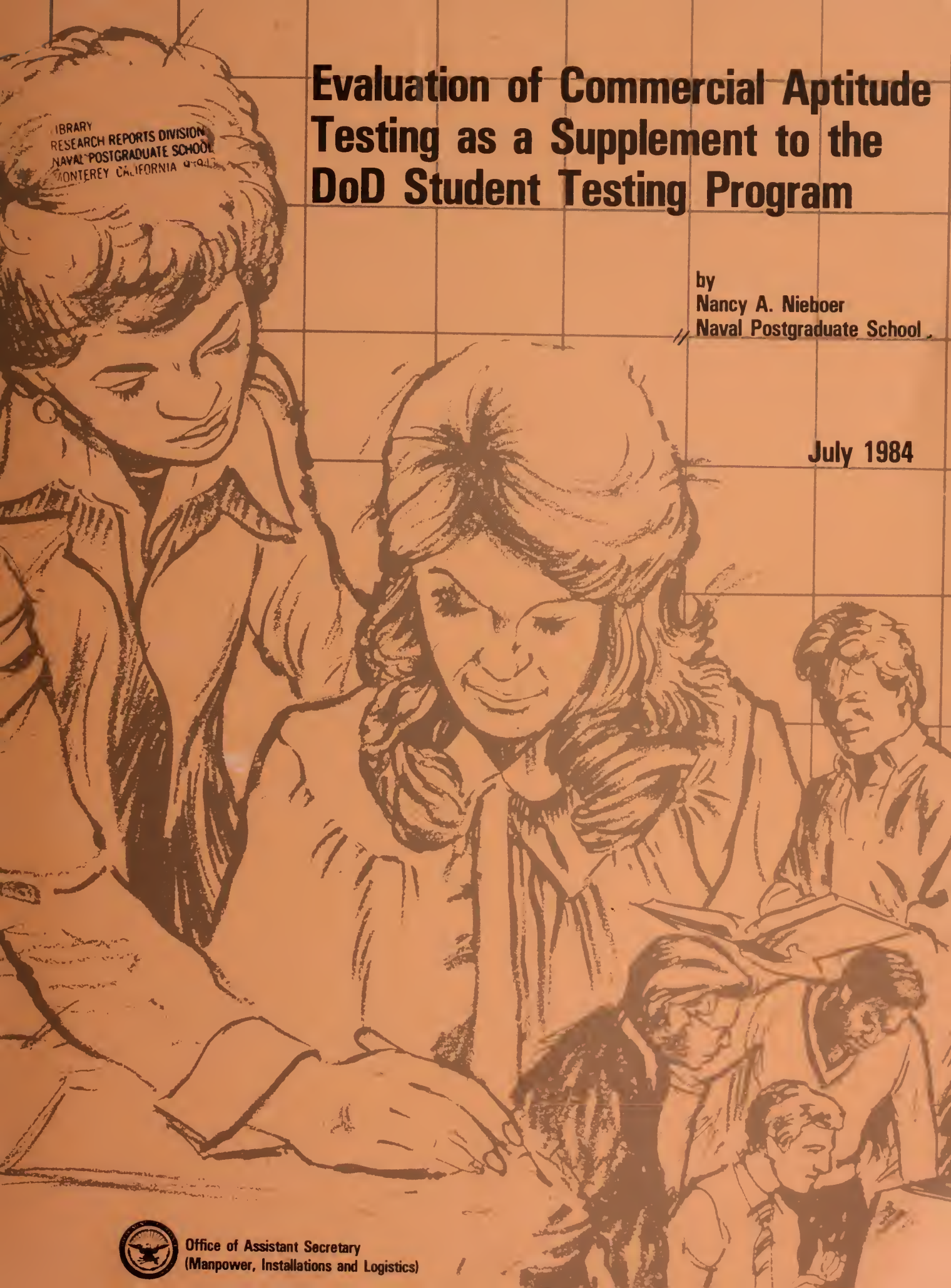


Evaluation of Commercial Aptitude Testing as a Supplement to the DoD Student Testing Program

by
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Naval Postgraduate School

July 1984



Office of Assistant Secretary
(Manpower, Installations and Logistics)

**EVALUATION OF COMMERCIAL APTITUDE TESTING
AS A SUPPLEMENT TO THE DOD STUDENT TESTING PROGRAM**

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July 1984

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FOREWORD

This report was prepared at the Manpower Research Center of the Naval Postgraduate School (NPS), with sponsorship from the Office of the Assistant Secretary of Defense (Manpower, Installations, and Logistics). The support provided by NPS and the Department of Administrative Sciences is gratefully acknowledged.

The report describes a dynamic experiment, from its inception in 1979 to its status at the end of fiscal year 1983. Many people contributed to the project: Doctors W. S. Sellman, Anita Lancaster, and Janet Treichel of OASD (MI&L); the members of the Joint Service Selection and Classification Working Group (formerly the ASVAB Working Group); other military and civilian representatives of the Army, Navy, Air Force, Marine Corps, the Military Entrance Processing Command, and the Joint Recruiting Advertising Program; Mr. Donald Carstensen and his staff at the American College Testing Program; representatives of the Human Resources Research Organization; and, the Army recruiters in Sacramento who helped shape the original pilot project. The information, cooperation, and advice provided by the representatives of all these organizations were essential.

Special thanks are due to Ann Marie Murphy Martin for assistance with data collection during 1983, and also to Mary Ellen Lathrop for her contributions to data collection and organization of the report since January 1984.

EVALUATION OF COMMERCIAL APTITUDE TESTING AS A SUPPLEMENT TO THE DOD STUDENT TESTING PROGRAM

EXECUTIVE SUMMARY

The Department of Defense (DoD) offers the Armed Services Vocational Aptitude Battery (ASVAB) for use in high schools and postsecondary institutions as a career guidance instrument, and to provide leads for recruiters to junior and senior students qualified for military training. Over 12 percent (790,000) of the nation's high school juniors and seniors take this battery each year, with about 34 percent scoring above the mean.

Using a commercial instrument to supplement the student ASVAB was first proposed by the commander of the U. S. Army Recruiting Command (USAREC) in 1979. Explored under a USAREC-MEPCOM (Military Entrance Processing Command) contract, the concept showed sufficient promise as an aid to the recruiting of higher-ability graduates to warrant a trial period.

Planning began in 1981 for Defense-sponsored commercial testing in 1982-1983. Two efforts were undertaken: (1) Army and Air Force supported testing in the Midwest and West with the Career Planning Program (CPP) developed by the American College Testing Program (ACT); and (2) DoD (on behalf of all the Services) sponsored testing in New England with the Psychological Corporation's (PsyCor) Differential Aptitude Tests (DAT).

Participation was offered primarily to non-ASVAB-using schools that were expected to be less inclined to cooperate with a DoD program than randomly chosen schools would have been. More than 48,000 students in over 300 schools were tested for the CPP pilot. The DAT pilot involved 6800 students in 40 New England schools.

In general, the schools were receptive to Defense sponsorship of a commercial battery. The reasons given most often for non-participation were "short notice" and "lack of testing time." The students tested in the CPP

pilot represented a cross-section of ability levels (with about 57 percent above the mean), while the students tested in New England appeared above-average in ability. In a survey taken before any follow-up information had been provided, one student in four participating in the CPP pilot reported an increased awareness of DoD opportunities as a result of the testing experience.

Male students were more likely than female students to request either direct or indirect contact with the Services. Both male and female students in New England seemed more receptive to receiving military information than their counterparts in the Midwest and West.

Reactions from the Services showed that recruiters found the supplemental CPP testing valuable and wanted it to continue. The DAT pilot, however, evoked mixed reactions. MEPCOM and Air Force surveys found over half the participating schools more receptive to information about the military. The Military Entrance Processing Stations (MEPSs) viewed the supplemental pilots as having a somewhat negative impact on the student ASVAB program, although MEPCOM reported a slight overall increase in ASVAB usage for the schools participating in Defense-sponsored commercial testing.

Cost comparisons with the student ASVAB indicated a lower cost per test and per quality lead for the commercial instrument. Efforts to link Defense student testing to subsequent accessions have proven difficult, although measures could be developed over time. Further attention should be directed toward enlistments from the graduating classes of 1983 and 1984 in schools that offered the Defense-sponsored instruments.

Experimental efforts to supplement the Defense student testing program with commercial aptitude tests were apparently successful in achieving the goals of: providing higher ability leads to recruiters, enhancing the image of the Defense student testing program, increasing the cooperation shown to recruiters in the participating schools, and increasing student awareness of military opportunities solely as a result of taking the test. In addition, recruiters were provided with leads that not only introduced students who had actively expressed an interest in learning more about the Service(s), but also provided a comfortable starting point for initial contacts with those students.

The pilot programs also revealed several problem areas: recruiter concerns about their role in selecting schools for participation, absence of a student telephone

number on the report released to recruiters, order of the release items on the DoD questionnaire, and lack of information about the pilot projects at the local level. Specific recommendations were made for improvements in a 1983-84 continuation of the CPP pilot effort. Recommendations about any future implementation of DoD-sponsored commercial aptitude testing will be based upon results of the pilot programs through the 1984 school year.

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**EVALUATION OF COMMERCIAL APTITUDE TESTING
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I. INTRODUCTION

A. BACKGROUND

Through the student testing program, the Department of Defense (DoD) offers the Armed Services Vocational Aptitude Battery (ASVAB) for use as a career guidance instrument in the nation's high schools and postsecondary institutions. The battery also provides military qualifying scores and "future plans" information to recruiters for each junior, senior, and postsecondary student tested, unless the school places a restriction on military access to the information.

ASVAB is administered annually in over 14,000 high schools, but the percentage of students tested within each school varies greatly. On a national basis, about 790,000 high school juniors and seniors, or about 12 percent of the available junior and senior student population, are tested with ASVAB in any school year. High schools that test fewer than 10 percent of their juniors and seniors appear to regard the Defense battery more as a military qualification test than as one useful for career guidance and counseling with all students.

The perception that ASVAB is useful primarily for military qualification purposes tends to encourage the selection of test-takers with average or below-average ability levels. Thus, the leads provided to recruiters often fall short of meeting the Services' need for well-qualified or higher-ability prospects.

An experimental project was initiated to study the feasibility of expanding the awareness of higher-ability students to opportunities available through the military. The project offered commercial aptitude tests to selected non-ASVAB-using high schools, and was intended to supplement the existing Student ASVAB Testing Program. It was anticipated that the experimental effort would increase recruiter access to higher-ability students who had expressed an interest in learning about education and training opportunities in the Service(s).

Undertaken by the Office of the Assistant Secretary of Defense (Manpower, Installations & Logistics), the

project involved the use of two commercially-produced aptitude instruments in three regions of the country.

B. PURPOSE OF THE STUDY AND ORGANIZATION OF THE REPORT

The purpose of the study was to evaluate the effectiveness of the use of two different commercially-produced aptitude tests with non-ASVAB-using schools. Data for the evaluation were provided by the two testing organizations, the recruiting commands, and the Military Entrance Processing Command (MEPCOM). The report first presents an overview of the history of DoD use of commercial aptitude tests, then describes each of the pilot projects. The recruiting command and MEPCOM reactions to the pilot efforts are reported, as well as program costs and any impact on the student ASVAB. Finally, the effort to offer commercial aptitude instruments in the DoD Student Testing Program is summarized, and recommendations are offered.

II. HISTORY OF DOD USE OF COMMERCIAL APTITUDE TESTS

A. ORIGINAL CONCEPT

Late in 1979, Major General William L. Mundie, then Commander of the U.S. Army Recruiting Command (USAREC), proposed that Defense should offer a commercially-produced aptitude test instrument to non-ASVAB-using schools. It was believed that such an offer would increase recruiter access to information for contacting high school juniors and seniors.

As part of a Department of the Army contract (Lee, Flyer, Eitelberg, & Orend, 1982), MEPCOM and USAREC jointly monitored a contractual effort to investigate the use of commercial testing in the DoD Student Testing Program. In this 1979-1982 project, the Human Resources Research Organization (HumRRO) identified the various types of test data collected nationally, determined the numbers and characteristics of students tested, and evaluated the appropriateness and usefulness of the data for Defense purposes. After determining that DoD could obtain and use commercial test data for recruiting purposes, the contractor arranged for a small experimental study of a commercially-produced aptitude test offered under Defense sponsorship.

B. PILOT PROJECT--SACRAMENTO, CALIFORNIA

The feasibility of Defense sponsorship of a commercial aptitude test was evaluated in a pilot project conducted by the American College Testing Program (ACT) in Sacramento, California during May 1981. ACT was selected for this initial pilot effort as a result of HumRRO's exploratory discussions with testing companies that offered interest, ability, and achievement tests on a national basis to high school students.

Since many of the organizations contacted were not interested in pursuing the concept of Defense-subsidized testing, this quickly limited the field. Other important considerations included: the capacity of the aptitude testing program for providing ability estimates useful for military selection, the acceptability of the test to the

high school guidance and counseling community, and the capability for automation of student records for data retrieval purposes.

Four tests were identified for more extensive evaluation, after consideration of the above factors. Two of these, the Scholastic Aptitude Test and the ACT Assessment, were measures of academic ability used primarily for college placement. These were judged inappropriate for Defense recruiting purposes. The remaining instruments provided measures helpful for career guidance and counseling purposes: the ACT Career Planning Program (CPP), and the Psychological Corporation's Differential Aptitude Tests (DAT).

Both the DAT and the CPP programs offered interest assessment as well as aptitude measurement, and their reporting formats provided individualized interpretations of testing results to students and high school counselors. Both testing organizations also expressed interest in Defense sponsorship or subsidization of their tests in selected high schools. Each was willing to enter into arrangements with DoD to develop a program that would serve the needs of high school students, the schools, and the military.

Some differences between the CPP and DAT programs were apparent, however. The CPP program was specifically useful for high school juniors, and included a "local items" portion in the student questionnaire which could be used by the school (or a third-party sponsor of the test) to obtain additional specific information. The test, like ASVAB, required about three hours for administration when the recommended "warm-up" session was included.

ACT used a centralized scoring facility and maintained individual data records in a fully-automated system. A precedent also existed for third-party sponsorship of the CPP, since ACT had previously marketed the test to community and junior colleges. These postsecondary institutions had underwritten CPP testing costs in high schools in their geographical areas in order to obtain access to student records (with student consent) for educational recruitment purposes.

The DAT program at that time, however, did not score all tests in a central location, and had no provision for additional items to be included in the student questionnaire. The DAT often was administered in the junior high (grades 7,8,9), rather than the high school grades (11,12) which interested the recruiting services. When used in

conjunction with its companion interest measure, the DAT required almost four hours to administer.

Since the CPP already was automated to include a supplemental questionnaire, ACT was able to undertake the limited pilot on short notice. High schools in Sacramento were offered the opportunity to use the CPP under Defense sponsorship. Although arrangements for this administration were made very late in the 1981 school year, officials at the district and school levels were interested enough in the Defense/ACT experiment to fit the testing into their crowded end-of-year schedules.

Testing was conducted in three high schools that previously had made little or no use of the ASVAB program, and over 1,240 juniors and seniors participated in the project. ACT made all the arrangements with the schools for testing, but the Human Resources Research Organization (Lee et al., 1982) assisted with development of DoD-specific questionnaire items and materials. Care was taken to explain clearly the interest and involvement of the Department of Defense in subsidizing CPP testing.

The DoD questionnaire (see Appendix A) developed for this project included release items which gave the student control over his or her test results. (The results included personal identifying information, responses to the DoD questionnaire, and CPP test answers.) The student chose from three options: (a) having ACT provide information about DoD educational and occupational programs through the mail (indirect contact); (b) having ACT send his or her test results to Defense for direct contact purposes; or (c) having no contact from Defense as a result of CPP testing.

Option (a) generated a letter and information packet to the student from ACT, with a mailback card for the student to use if he or she wanted additional information from a specific Service. No information was provided to the Service(s) unless the student initiated the contact after receiving the information from ACT. Option (b) generated a "DoD/ACT Career Planning Program Recruiter's Report" that enabled a Service recruiter to contact the student directly. A sample report is shown in Figure 1. Option (c) allowed no use of the student's test results beyond sending them to the home school for counselor use.

Because it would be useful both for recruiters and for students considering military options, ACT developed conversion tables to relate student scores on the CPP to

Armed Forces Qualification Test (AFQT)¹ score ranges. A comparison of the CPP historical file with the 1980-81 ASVAB testing file produced a sample of 4959 students taking both tests.

Using linear regression procedures, ACT personnel were able to predict the AFQT with a multiple correlation of .84. The standard error of estimate was 14.12. Predicted AFQT scores were classified into the same "Categories" used by DoD; extreme values of predicted AFQT scores were rare because of the regression effect. It was possible to provide an estimated AFQT score on the recruiter report for those students who released their information to Defense.

Although the pilot testing in Sacramento occurred under adverse circumstances, (i.e., on short notice, and at the end of the school year), the initial findings showed that 27 percent of the students were willing to be contacted directly by Defense. An additional 33 percent requested indirect contact, while 40 percent preferred no contact at all. Interest in military service was highest among male juniors, as was willingness to be contacted directly by Defense recruiting representatives. This finding suggested that male students, by the end of the senior year, had reasonably firm postsecondary school plans, while juniors were more willing to consider a range of possible options.

An analysis of the characteristics of students choosing each of the options for DoD contact (direct, indirect, no contact) showed no significant differences in ability levels among the three groups. Students willing to be contacted directly reported a greater need for help in going to college (financial assistance, employment, developing study skills) than those preferring indirect or no contact. Students requesting direct contact also were more likely to believe they would benefit from a break in schooling, were more concerned with developing special occupational skills after leaving high school, and were more interested in military service (over 40 percent positive responses).

¹AFQT: score used for determining initial qualification for the military. It is derived from the verbal and arithmetic subtests of the ASVAB. Category I indicates high ability to succeed in military training programs; Category V, the lowest grouping, is not acceptable for entrance into any Service. Categories I-IIIA comprise the upper half of the score range, the 50th percentile and above.

**DOD/ACT CAREER PLANNING PROGRAM (CPP)
RECRUITER'S REPORT**

<p>*Name: Abarca, George</p> <p>*Address: 100 Main Street Anytown, IA 66666</p> <p>*Telephone:</p> <p>*Birthdate: 9/22/66</p> <p>*Sex: Male</p> <p>*SSN: 384-00-000</p> <p>*Test Date/Name 1982 Spring CPP/DOD</p> <p>*School: Joplin High</p> <p>*Grade: H.S. Junior</p> <p>Avg. H.S. GPA 2.8</p> <p>*Est. AFQT GPA 3A</p> <p>Occupational Choice: Automotive body repair</p>	<p>Responses to Military Items</p> <p>1. Very sure of educational and/or vocational plans</p> <p>2. Intend to continue education; finances not a problem</p> <p>3. Almost impossible to find a full-time job after graduation</p> <p>4. Parents in favor of my joining the military</p> <p>5. Counselor has encouraged me to look into military career opportunities</p> <p>6. Yes, close friend or relative currently in armed services</p> <p>7. I know if qualified I can select the training and occupation I want before enlistment</p> <p>8. Yes, I know individuals can have 75% of their tuition paid by military for college courses taken while in military</p> <p>9. Have not had physical problems</p> <p>*10. Plan to go to two-year college after graduation</p>
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*Information also provided by ASVAB-5 Recruiter Printout.

Figure 1

The American College Testing Program provided HumRRO with copies of the CPP results plus DoD questionnaire responses for the students willing to be contacted directly to receive more information about military programs. These test records, designed to provide a wide range of information to the student and guidance counselor, were much more detailed than would be necessary for the military recruiter to use in making contact with the students. For this reason, an extract was developed by HumRRO and DoD that would combine interest and ability information with student responses to the 12-item Defense questionnaire. This extract, the DoD/ACT CPP Recruiter's Report, was then field-tested with Army recruiters assigned to the three pilot high schools in Sacramento.

A training session was conducted at the Sacramento District Recruiting Command (DRC) with recruiting personnel who were acquainted with the schools and a number of the students participating in the pilot program. An overview of the pilot project was provided, the Recruiter's Reports were studied, and ways to use the information most effectively were discussed. The recruiters contrasted the information provided by the CPP Recruiter's Report with that available if a student were tested with ASVAB.

Since recruiters traditionally rely heavily on telephone contacts in order to reach students, they often feel at a disadvantage in knowing whom to talk to, in developing rapport with the student, and in discovering which of their Service's programs might be of greatest interest for opening the discussion. The Sacramento recruiters reported that leads provided in the CPP Recruiter's Reports did much to bridge that gap, because the Reports provided an introduction to self-selected students who were interested in Defense programs.

With information in hand about the student's ability level, interest in military service, postsecondary plans, occupational interests and goals, financial needs, etc., the recruiters could tailor their initial communications specifically to the individual student. The additional information provided in the CPP Recruiter's Reports was expected to enhance significantly the initial communications between recruiters and high school students.

This expectation was verified when the Commander, Sacramento DRC, reported (E. A. Levasseur, letter to Commander, USAREC, 8 February 1982) that the Career Planning Program leads had "exceptional value." The Sacramento District recruiters had commented: "Best recruiting tool I have!" and their supervisor had observed: "The CPP gives the recruiters a feeling that the prospect

is not a stranger." It was the DRC Commander's recommendation that sponsorship for the CPP should be implemented USAREC-wide. This recommendation was supported by his commander (C. J. Archer, letter to Commander, USAREC, 1 March 1982) at the USAREC Western Region, who commented: "As the overall requirement for high school graduates increases within the Army, initiatives such as the one displayed here will become more vital."

The pilot program using a commercial aptitude battery subsidized by DoD was judged successful. Military recruiters were pleased with the initial results, and both the testing organization and the schools which had been contacted were agreeable to the arrangement. Therefore, consideration was given to expanding the pilot program.

C. DECISION TO EXPAND PILOT PROGRAM

On 19 June 1981, Major General (soon to become Lieutenant General) R. Dean Tice, Deputy Assistant Secretary of Defense for Military Personnel and Force Management, wrote to offer USAREC the opportunity to extend the pilot test and subsidize larger-scale testing for the 1981-1982 school year. An information copy of the letter also was provided to the Commander of MEPCOM, as co-sponsor of the original pilot program. Major General (now General) Maxwell R. Thurman, then Commander of USAREC, accepted this offer and committed USAREC to fund the testing of 25,000 juniors, after consideration of the following information:

--The expanded pilot would be made available only in schools where ASVAB was not used, or had been used with only a small proportion of students. The use of the commercial aptitude test would not compete with ASVAB.

--The expanded pilot would produce leads in locations where ASVAB had not been well-accepted by the schools, such as California and the Midwest. The acceptance of a DoD-subsidized test by Sacramento high schools suggested the project might open new doors to recruiting.

--The distribution of mean aptitude scores was expected to be the same as in the initial pilot, and recruiters would have greater access to the AFQT Category I-IIIA market than was the case with the student ASVAB.

--The cost of administering the student ASVAB had been variously estimated at \$3.63 per examination, or \$5.65 per exam for the target population of juniors and seniors (Lee, 1979), and at \$1.01 per exam for all grades tested (MEPCOM

Testing Directorate, telephonic communication, November, 1980). The differences were explained in part by the inclusion or exclusion of: research costs, military pay and travel costs incurred by MEPCOM personnel, and other costs related to publicity materials for the program. None of the estimates included recruiting command expenditures in support of the student ASVAB program.

--By comparison, the supplemental commercial aptitude test was expected to cost approximately \$4.15 to \$4.30 per student for the first 25,000 tested (with costs decreasing as numbers of tests increased), with only juniors and seniors tested. The commercial testing organization would (1) provide all test materials, administration, and scoring; (2) contact and schedule schools; (3) train school counselors; (4) provide pre- and post-test information; and (5) prepare and mail a personalized letter to each student who requested information about military programs.

After General Thurman committed USAREC to the expanded pilot program, General Tice offered each of the other Services a similar opportunity in August 1981. The Air Force agreed to sponsor a pilot project for 25,000 students similar to that undertaken by the Army. The Navy and the Marine Corps declined to participate at that time due to funding constraints.

Having determined the wishes of the Services, the Office of the Assistant Secretary of Defense (Manpower, Installations & Logistics) then sought competitive bids for the project and received proposals from testing organizations capable of performing the required work. The Request for Proposals specified that separate contracts with two testing companies would be awarded--one for testing 50,000 high school juniors in the Spring of 1982; the other for 50,000 high school seniors in the Fall.

Only one organization, The American College Testing Program (ACT), submitted a proposal for the Spring testing. The ACT proposal was technically superior (based on the evaluation factors), and a contract was awarded.

Proposals were submitted by three organizations for the Fall testing. Two were technically acceptable, and a contract was awarded to The Psychological Corporation (PsyCor) for the second portion of the pilot testing.

Because the two contracts involved different test instruments, different geographical locations, and different sponsorship, they were managed separately. Chapter III will describe the first pilot effort, the ACT Career Planning Program testing project, which began in Spring 1982.

III. AMERICAN COLLEGE TESTING PROGRAM PILOT

A. SPONSORSHIP AND LOCATIONS

The ACT project (The American College Testing Program, 1983) was composed of two parts funded separately by the Army and the Air Force. Each Service sponsored the testing of 25,000 juniors in different geographical locations, and received exclusive use of the student results from those areas.

Initially, the selection of the ACT testing locations was based on minimal or no student ASVAB usage, and on the needs of the Services. Minnesota schools expressed greater-than-expected interest as a result of State-level endorsement of the Career Planning Program and ACT's aggressive marketing. In the Los Angeles area, schools that had used ASVAB sought information about the commercial testing program. These expressions of interest caused MEPCOM, the Command with responsibility for student ASVAB administration and scoring, to caution against potential conflict between the supplemental commercial aptitude testing pilot program and their own pilot program² to determine the effectiveness of centralized marketing of the student ASVAB.

As a result, representatives of the Services and MEPCOM agreed on a list of schools which would be invited to participate in the ACT pilot programs. The criteria for selection specified that the school could not have used ASVAB in School Years 1980-81 or 1981-82, and was not scheduled for ASVAB testing in 1982-83. The Military Entrance Processing Stations (MEPSs) in the centralized marketing program were excluded from consideration for the commercial testing pilots beginning in Fall 1982.

²USMEPCOM ASVAB Centralized Marketing Program. On 1 October 1981, 17 of the Military Entrance Processing Stations assumed central management responsibility for the DoD Student ASVAB Testing Program (Hamlin, 1981). These MEPSs employed "ASVAB Test Specialists" with full-time responsibility for increasing the number of students and schools tested with the student ASVAB. This program was described and evaluated by Schneider, Morris, Waters, and Lee in 1984.

Because the ACT contract was awarded in late April, there was not enough time to complete the testing of 50,000 juniors in the Spring. The ACT testing period, therefore, was expanded to include the Fall of 1982, with a revised completion date of 31 March 1983 for the project.

Army-sponsored testing occurred in California, Iowa, and Minnesota in the Spring. ACT Fall testing for the Army continued in California and Iowa, and began in Indiana, Michigan and Ohio. In deference to the MEPCOM Centralized Marketing Program pilot at the Minneapolis MEPS, no further DoD-sponsored CPP testing was scheduled in Minnesota.

Testing sponsored by the Air Force occurred throughout Michigan, and in Portland, Oregon and Seattle, Washington during the Spring 1982 portion of the pilot project. The Fall testing program continued in the same locations.

B. TESTING ACTIVITY AND SCHOOL RESPONSE

Initially, ACT invited approximately 725 secondary schools to have their students participate in the pilot project. The invitations were sent primarily by mail to schools in California, Minnesota, and Michigan. Later, a limited number of schools in Iowa, Oregon, and Washington were contacted.

The invitation to schools summarized the ACT Career Planning Program and stated clearly that the Department of Defense was sponsoring the pilot effort. The schools were presented with three important components of the participation agreement: to present the program as an every-student (junior) testing program, to commit their staff to a training session conducted by ACT staff, and to agree to a number of steps to ensure adequate delivery of the project's services. The invitation letter was accompanied by a reply form to facilitate school response.

The initial reaction of the secondary school community to the DoD-ACT/ CPP project was very encouraging, despite receipt of the invitation late in the school year with testing proposed for April or May. In Minnesota, for example, approximately half of the schools contacted responded to the invitation. The invitation was accepted by 45 percent of the respondents; another 40 percent wanted to participate but could not do so that late in the school year ("needed longer notice"). This second group expressed interest if the project were to be continued the following school year.

The timing of the project was cited most often as a reason for nonparticipation. Other reasons included: concern about DoD sponsorship and involvement, already offering the CPP through local funds, use of other tests, and dissatisfaction with tests in general. Among the remaining schools, 9 percent were uncertain about participation in the pilot, and 6 percent indicated they would not participate.

The receptivity of Minnesota educators and the concerns they expressed about the project proved to be representative of the reactions of school officials in other states as well. With the late Spring introduction of the project, ACT found that the most difficult barrier to be overcome was availability of time in the school calendar for testing students. School officials stated clearly that they would prefer a Fall testing with juniors (so the school year would be available for counseling purposes). Given the time restrictions, they could not accommodate late-Spring testing.

The volume of testing accomplished in the Spring, despite the time constraints, indicated high interest among secondary school counselors and principals in the DoD-sponsored ACT/_CPP project. The total Spring participation level reached 22,097 students in 153 secondary schools, or approximately 20 percent of the schools contacted. This response, despite a restricted timeframe, prompted ACT to request and receive from DoD a contract extension to permit Fall testing.

With the elimination of Minnesota schools from the sample for Fall testing, it was necessary to augment the number of schools available. This was true especially for the Army-sponsored portion of the pilot. ACT and the sponsoring Services identified additional eligible schools from lists of non-ASVAB-using schools provided by the Interservice Recruitment Committees (IRC)³ in the pilot project areas. This effort increased the number of potential participants by approximately 28,000 students. In late August, an invitation to participate was sent to these

³Interservice Recruitment Committees consist of the local recruiting commanders for each of the Services and the MEPS commander. In this forum, locally-responsive Joint-Service efforts to enhance the DoD Student ASVAB Program can be developed and any problems resolved. The IRC is the Joint-Service body with the most up-to-date information about student ASVAB use within its geographical area of responsibility.

schools, with a required completion date of November for all testing.

Several months later, a limited number of schools were added to the eligibility lists. Some of these schools were sent letters of invitation to participate in the project, and the testing completion date was then extended to February 1983. A total of 805 non-ASVAB-using schools were invited to participate in the Fall 1982 project.

The population of schools made available for the pilot was **not** representative of the nation's schools, but was selected based on lack of participation in the ASVAB program. Some of the schools were perceived by IRC members to be "anti-military," while others served a population not generally qualified for military service. Still others prepared their students for religious vocations, and some believed the Department of Defense should not recruit on school time. Some merely had registered their unfavorable opinion of ASVAB per se by declining to participate in that program, and were otherwise quite supportive of the military. Despite this difficult market, a total of 161 schools participated in the Fall 1982 portion of the ACT/CPP project. This represented 20 percent of the invited schools, and the testing of an additional 26,323 students.

The reason most often given for nonparticipation related to the school's perception of relatively short notice for delivery of the project (Table 1). While this number was reduced significantly in the Fall (from 84 to 61 percent), it continued to be a major reason for nonparticipation. This may be reflective of the November completion deadline specified in the original invitations for the Fall project.

Although the deadline subsequently was postponed until 1 February 1983, the change was communicated in November, with the holidays and end-of-semester periods intervening. It appeared that the early announcement of a September through February implementation period might have produced a higher proportion of participating schools in the Fall.

The numbers of schools citing self-funded use of the CPP and other testing programs as a reason for nonparticipation increased appreciably in the Fall. Since ACT had found that such budget decisions are typically made during the previous Spring, it was suggested that the timing of invitations to participate in Spring, with testing options available from September through March, would assist in

reducing the numbers of schools giving these reasons for nonparticipation.

Only a small number of the schools choosing not to participate cited an aversion to DoD sponsorship of the program as a reason. While this number increased for the Fall over Spring testing, the change may have been related to the method used to identify eligible schools.

TABLE 1

**ACT CAREER PLANNING PROGRAM PILOT: REASONS
GIVEN FOR SCHOOL NONPARTICIPATION**

(PERCENTAGE OF RESPONSE)

	<u>Schools Invited</u>	
	<u>Spring</u>	<u>Fall</u>
Time problem--needed longer notice	84	61
Not interested--no explanatory comment provided	5	10
Aversion to military involvement	3	7
Time problem--insufficient staff/ student time to deliver services	3	3
Using some other testing service	2	9
Already using CPP	2	7
Dissatisfaction with testing in general	2	2

Although willingness to participate in the project was an obvious indicator of a school's response to the invitation, other important information could be obtained from questioning the students and the school project coordinators (high school counselors responsible for the DoD/ACT project in their own schools). Additional surveys were conducted by ACT to provide such reactions.

C. SCHOOL AND PUBLIC REACTIONS

A student survey was designed to elicit: (1) reactions to the CPP as a guidance/testing experience, (2) descriptions of intended use of the results, (3) opinions about Defense support for the project, and (4) recommendations about future use of the CPP with other students. The project coordinators in a randomly drawn sample of participating schools were asked to have up to 100 students complete the survey. The responses totalled 23 schools and 1476 students from the Spring testing, and 27 schools with 1776 students from the Fall. The student respondents were almost evenly divided between males and females.

The students were generally very positive about the CPP as a testing and guidance experience, and about DoD support for the project. About 87 percent of the students indicated the CPP was a very good testing experience, and said they would recommend a similar test be offered for future students. Only about 4 percent felt that it was a "poor idea" for DoD to sponsor such a project.

When asked about their parents' views of the project, again only 4 percent reported a negative opinion. Even fewer (about 2.5 percent) thought their counselor was negative toward the Defense-supported CPP.

The survey responses indicated that students intended to discuss, or had discussed, their results with a counselor (87 percent), with other students (78 percent), with parents (71 percent), and with teachers (23 percent). This high rate of self-reported plans to discuss career-related results, combined with the DoD mailings to students who requested information, suggested an increased level of awareness of DoD opportunities among the participants (students, parents, and counselors).

In fact, over one-quarter of the students queried did report an increased awareness of DoD opportunities. This was significant because the survey was taken before either direct contact or mail information were initiated as a result of the project. The increased awareness may have resulted from information-seeking behaviors generated by the CPP materials, the DoD questionnaire, or discussions of the test results with counselors. The level of awareness of Defense occupational and educational opportunities would be expected to increase further, as soon as students received the information they had requested and/or were contacted by recruiters.

By way of comparison, more than two-thirds reported no change in their awareness of military opportunities at the time of the survey. The question was not answered by 2 percent, and the remaining 3 percent stated that their awareness had decreased as a result of the DoD-sponsored CPP testing experience.

A second survey was conducted to determine the evaluations and recommendations of counselors, administrators, parents, and school boards. Responses were received from 75 percent of the participating schools. The project coordinators (counselors responsible for the DoD/ACT project in their own schools) reported a very positive view of the CPP as a tool to stimulate career planning. About 90 percent said Defense subsidization was a good idea.

When asked to describe the attitudes of students and parents to the DoD-sponsored CPP project, the coordinators indicated that fewer than 5 percent of the students and 2 percent of the parents disliked the experience or were negative toward the idea. Highly positive attitudes toward the project and acceptance of Defense support were attributed to most school boards, superintendents, and principals. Over 92 percent of the project coordinators responding indicated they would recommend that their school participate again, if the opportunity were offered.

Since one of the conditions of school participation was the notification of parents about the project and its DoD sponsorship, parental and administration acceptance were expected among participating institutions. These expectations were fulfilled both in the survey responses and in the absence of negative publicity about the ACT/ CPP project.

Finally, project coordinators were generally very pleased with the operational support provided by ACT for the project. Fewer than 5 percent reported negative responses in this area (i.e., support materials, training workshop, or services for getting testing materials to the school "were not very helpful"). The coordinators preferred to receive invitations to participate in such a project in the March-April-May time frame (about 50 percent) or in August-September (25 percent). The time most clearly preferred for conducting testing (69 percent) was October-November.

Additional reactions of school counselors to the ACT pilot project were obtained at the annual convention of the American Personnel and Guidance Association (APGA, which subsequently was renamed American Association for Counseling and Development). During the 1983 APGA meeting in

Washington, D.C., ACT convened its 20-member High School Advisory Council to discuss ACT services, including the DoD-sponsored CPP pilot. Council members agreed, with one exception, that the pilot had merit and should be expanded (N. A. Nieboer, memorandum of meeting, March 1983). The dissenting member criticized the DoD student ASVAB testing program, and expressed concern that ACT would jeopardize its reputation through association with Defense.

D. RESULTS

More than 48,000 students in over 300 high schools, in designated areas of the Midwest and Far West, were tested during the ACT project. This served the primary purpose of the experimental program: to expand the awareness of high school juniors to opportunities available through military service.

The project was well-received by the participants, who were fully informed about DoD purposes in sponsoring the testing program. The project coordinators (93 percent) and students (86 percent) recommended overwhelmingly that the project be continued in the future. In the Spring testing, 49 percent of the responding male students and 33 percent of the female students requested either direct or mail contact with the sponsoring Service. The percentages increased for the Fall testing (males--60; females--43). The requested information was provided to those students at a time when the school was actively encouraging them to consider career and educational opportunities.

Counselors from both nonparticipating and participating high schools indicated that the time available for implementation of the Spring project was too limited. This limitation was an inescapable effect of awarding the contract in late April, and affected the number of schools able to participate, the number of students tested, and the care taken by counselors in administering the program (including the military-specific items).

With testing continuing into the Fall, it was possible to increase the numbers of participants, although time restrictions were still a factor (as described above). For the Spring portion, approximately 60 percent of the participating schools administered the CPP to at least 80 percent of the junior class. This increased in the Fall to more than 70 percent of the schools testing 80 percent or more of their juniors. These percentages compared to the national average of 12.6 percent of juniors and seniors tested with the student ASVAB during School Year 1982-1983.

The numbers of schools and students participating in both the Spring and Fall 1982 portions of the program are displayed in Table 2. These increased slightly for the Fall portion of the pilot. It must be reiterated that the institutions invited to participate in the experimental program were not representative of U.S. high schools. They were selected because they had not participated in the ASVAB student testing program during the previous two years, or had tested only a very small percentage of their students with ASVAB during that time. For perspective, the average number of students tested per session might be compared to the average of about 70 for the student ASVAB.

TABLE 2
PARTICIPATION OF SCHOOLS AND STUDENTS IN
ACT CAREER PLANNING PROGRAM PILOT

<u>Session</u>	<u>Schools Contacted</u>	<u>Number/Percent Participating</u>	<u>Students Tested</u>	
			<u>Total</u>	<u>Average Per Session</u>
Spring	800	152/19	22,097	145
Fall	805	161/20	26,323	164

The students tested represented the full spectrum of ability levels, as measured by the Armed Forces Qualification Test (AFQT) estimate described in Chapter II. These comparisons and student ASVAB Categories are shown in Table 3. The AFQT I-IIIA ranges for CPP-tested students compared favorably with those for DoD accessions in 1980-81, and the national youth population⁴, although Category I was over-represented in the CPP group.

⁴Profile of American Youth: 1980 Nationwide Administration of the Armed Services Vocational Aptitude Battery (1982), a study sponsored by DoD in cooperation with the Department of Labor (DoL). The ASVAB was administered to a nationally representative sample of nearly 12,000 men and women between the ages of 16 and 23. The AFQT was used as an index for comparing the test performance of military and civilian groups.

Students tested in the ACT pilot demonstrated ability levels somewhat higher than a nationally-representative sample of high school seniors tested with the CPP in 1983 (16.1 mean estimated ACT Composite Score). The participating students appeared comparable to the 1980 youth population, and also to young men and women accepted into the Armed Services in 1980-81. These groups all showed much higher percentages of scores in Categories I-III A than did the group tested with the student ASVAB. Further, the characteristics of the participating students suggested that the group was representative of eleventh-grade students nationally. The AFQT category scores of students tested with the student ASVAB, however, could not be assumed to be representative of the ability levels of either their school or their age group.

TABLE 3

**AFQT CATEGORY DISTRIBUTIONS (PERCENTAGE):
STUDENT ASVAB, ACT/CPP, YOUTH POPULATION,
AND DOD ACCESSIONS**

AFQT Category	Student ASVAB SY 1979-80 ^a	ACT/CPP Est. 1982 ^b	1980 Youth Population ^c	1980-81 Accessions ^d
I	1.6	8.6	4.4	2.8
II	15.5 } 32	32.7 } 57	32.7 } 53	30.3 } 54
IIIA	15.2	15.6	15.9	20.9
IIIB	16.2	20.7	15.8	26.4
IV	40.7 } 68	22.2 } 43	23.8 } 47	19.6 } 46
V	10.7	0.3	7.4	0.0

^aUSMEPCOM computer files, School Year 1979-1980. AFQT Score Range 1-99; Mean 50.

SY 1979-80 junior and senior ASVAB data were used for comparison with the 1980 Youth Population. Juniors and seniors in Categories I-III A in SY 1980-81: 32.5 percent; SY 1981-82: 31.9; SY 1982-83: 33.9.

^bACT Final Report, March 1983; testing in Spring 1982.

^cProfile of American Youth, OASD(MRA&L), March 1982.

^dDefense Manpower Data Center files, FY 1981.

Students releasing their CPP and questionnaire information directly to DoD or requesting information through ACT (indirect contact) scored at about the same ability levels as all students participating in the project.

Comparisons were made using CPP average stanines, self-reported grade point average, estimated average ACT composite score, and estimated AFQT. The students requesting direct or indirect contact included both high-ability students and those with less developed skills, in proportions similar to their representation in the high school population as a whole. Table 4 shows the estimated ACT and AFQT scores for those tested in the Army and Air Force portions of the pilot project.

TABLE 4
AVERAGE ESTIMATED ABILITY LEVELS
OF CPP-TESTED JUNIORS

	<u>Army</u>	<u>Air Force</u>
<u>All Participants</u>	(N=21,100)	(N=24,305)
ACT Composite ^a	16.9	16.8
AFQT Estimate	48.7	47.8
<u>Juniors Releasing Record (Direct)</u>		
ACT Composite	16.3	17.1
AFQT Estimate	48.0	50.2
<u>Juniors Requesting ACT Send Information (Indirect)</u>		
ACT Composite	16.9	17.2
AFQT Estimate	49.1	49.8

^a Score Range 1-36; Mean 16.1 for 1983 high school seniors.

In the Spring portion of the project, approximately 11 percent (Army) and 21 percent (Air Force) of the participating students did not respond to the release items or to the military-specific items on the questionnaire. It appeared that the questionnaire had not been provided to the students in some schools, perhaps as a result of the limited time available for test-administration late in the school year. The non-response rate was reduced to only 6

percent for the Fall portion of the project, in both the Army and Air Force groups.

Differences also were apparent from Spring to Fall in the willingness of students to release their records or request further information from the Services. As shown in Table 5, all students appeared more receptive in the Fall. In each of the groups, males were more likely than females to request further contact.

TABLE 5
PERCENTAGE OF CPP-TESTED JUNIORS REQUESTING
CONTACT, BY GENDER, TESTING SESSION,
AND SPONSORING SERVICE

<u>Sponsor</u>	<u>Session</u>	<u>Gender</u>	<u>Contact</u>	
			<u>Direct</u>	<u>Indirect</u>
Air Force	Spring	Male	25	54
			28	55
	Fall	Female	10	36
			12	41
Army	Spring	Male	17	48
			24	54
	Fall	Female	6	33
			12	42

A review of the preliminary pilot study in Sacramento had shown 35 percent of the male juniors releasing their records directly to the Department of Defense for the purpose of receiving more information. Despite increases in the "direct contact" choice from Spring to Fall during the 1982-83 pilot program, the overall percentage of juniors releasing their records directly to the Army or the Air Force was considerably lower than had been anticipated. Several factors appear to have had an impact on this response.

For the Spring 1981 pilot in Sacramento, ACT officials had approached participating high schools on behalf of the

Department of Defense. The release items used for that pilot were not specific to any Service, and referred to a general "DoD" category for receipt of student information. The fact that the release items for the 1982 projects were specific to only **one** branch of the military may have accounted for some of the difference in response.

Other possible factors included an institutional influence on non-response, rather than student choice (i.e., the DoD questionnaire was not provided to students); and, the order of release items for the Spring 1982 project, which allowed students to respond first to the item requesting information about military opportunities through ACT. The reversal of the release items for the Fall portion, with the student first given the choice of receiving information directly from the Service, may have contributed to the increased preference for direct contact noted in the Fall.

The tendency for students to demonstrate greater receptivity to Service contact (both direct and indirect) in the Fall portion of the pilot is shown in Table 6, in conjunction with the estimated AFQT. The percentages of students requesting contact, and the mean estimated AFQT category for each group, are shown by gender, test session, and sponsoring Service. The mean estimated AFQT category for all students requesting contact was IIIA. However, females were slightly lower with an estimated mean AFQT of IIIB, as were male students tested for the Army pilot in the Fall.

Overall, about 48 percent of juniors tested with the CPP expressed an interest in the military, and requested either direct or indirect contact. This compared with about 96 percent available leads from the student ASVAB, where students have no choice about contact (but a small percentage of schools do restrict access to the students). From the ASVAB leads, about 8 percent of the students typically express an interest in the military, with 29 percent undecided about their future when they take the test (Lee, 1979). The "military" and "undecided" groups, totalling 37 percent of ASVAB leads, have traditionally been the ones followed-up as most productive by recruiters.

While it was clear that 100 percent of all I-IIIA CPP leads were interested in military information (because the students specifically requested contact when offered the choice), the comparable percentages for students taking the high school ASVAB could only be estimated, since the individual student has no control over contact resulting from ASVAB testing. If the students who indicated "military" and "undecided" plans on ASVAB were assumed to have

abilities representative of the population tested, then about 34 percent of each group would fall into Categories I-III A. This assumption might be expected to overestimate student abilities for the "military" and "undecided" groups.

TABLE 6

PERCENTAGE AND MEAN ESTIMATED AFQT CATEGORY OF CPP-TESTED STUDENTS REQUESTING CONTACT, BY GENDER, SPONSORING SERVICE, AND TEST SESSION

	<u>SPRING 1982</u>			<u>FALL 1982</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
ARMY						
Requesting Contact(%)	49	33	41	58	44	50
Estimated AFQT Category	IIIA	IIIB	IIIA	IIIB	IIIB	IIIB
AIR FORCE						
Requesting Contact(%)	56	37	46	60	43	51
Estimated AFQT Category	IIIA	IIIB	IIIA	IIIA	IIIB	IIIA

The Career Planning Program provided a large proportion of higher-ability student leads from individuals who expressed interest in receiving military information, and who had not been tested with the student ASVAB. These leads offered recruiters an excellent starting point for their contacts. The use of the leads by the participating Services, and relative costs associated with high school testing, will be discussed in Chapter V.

IV. PSYCHOLOGICAL CORPORATION PROJECT

A. SPONSORSHIP AND LOCATIONS

The Psychological Corporation (PsyCor) project (The Psychological Corporation, 1983) was sponsored by the Office of the Assistant Secretary of Defense (Manpower, Installations & Logistics) [OASD(MI&L)]. The testing of 50,000 seniors was to be conducted in the New England States, a region where recruiting has traditionally been difficult and the use of ASVAB with juniors and seniors was 25 percent below the national average. The project results and student information were available to each of the Services.

Lists of the schools eligible for invitations to participate in the project were provided to PsyCor by MEPCOM and the Services at a May 1982 meeting. The selection criteria were the same as described for the ACT pilot: the school had not tested with ASVAB in School Years 1980-81 or 1981-82, and was not scheduled for testing in 1982-83.

The above criteria were given to PsyCor representatives, but some confusion occurred when computer printouts and school lists were provided by MEPCOM and the Services. As a result, invitations were sent to all high schools in New England. However, the letter was worded as a request for expressions of school interest in participating in the Defense-sponsored program. This made it possible for MEPCOM to screen the schools which responded favorably to ensure agreement with lists of eligible schools provided by the Interservice Recruitment Committees (IRCs) and the Military Entrance Processing Stations (MEPSs).

PsyCor was then informed of the schools which should be sent Differential Aptitude Tests (DAT) materials. The remaining schools (interested-but-not-eligible) received a letter thanking them for their interest, but informing them that they had not been selected for participation in the project.

Some schools were chosen from each of the six New England States: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont, but the majority of interested schools had been declared ineligible by the IRC. Thus, the number of high schools participating in the

Fall pilot was much smaller than had been expected. Several of the eligible schools choosing not to participate stated that they would be willing to test their juniors (or sophomores, or freshmen), but not seniors (who were assumed to have made their post-graduation plans).

By mid-September, some modifications were necessary in order to gather adequate data from this project. At a meeting attended by PsyCor, MEPCOM, the Services, and OASD (MI&L) representatives, it was decided that the project should be expanded to include testing of juniors and seniors in the Spring of 1983.

Invitations again were extended to all eligible New England schools to inform them of the time extension and modification of the project. The schools were advised that testing could continue through the Spring of 1983, and that both juniors and seniors could participate in the project. The final total of 40 participating schools was distributed as follows: Connecticut--8; Maine--6; Massachusetts--20; New Hampshire--1; Rhode Island--4; Vermont--1.

B. TESTING ACTIVITY AND SCHOOL RESPONSE

With the goal of testing 50,000 seniors in the six states, the Psychological Corporation originally conveyed invitations to 693 schools through mailings and visits from sales representatives. "The Defense Department's purpose in sponsoring the DAT testing program was fully explained to officials at selected schools" (PsyCor, 1983), and follow-up telephone calls were made as necessary.

The letters of invitation mailed to the schools informed them of "an important pilot study" being conducted by PsyCor for DoD, which would allow the administration of the DAT "to your high school seniors free of charge in October 1982" (PsyCor, 1983, Appendix A). A fact sheet was enclosed to provide details of the study and the benefits of participation for both the students and the schools.

A letter of agreement was included in the package to allow schools to indicate their interest in participating. The letter stated that the determination of the final sample would be made in accordance with regional sampling requirements, and that all schools expressing interest would be notified as to whether or not they were included in the study.

The initial invitations were mailed in May 1982, and it soon was evident that many schools testing with ASVAB

had been included. The selection of eligible schools from those responding was made by MEPCOM and USAREC representatives in early August, at the request of the OASD(MI&L) contract monitor. Only 32 of the 119 schools expressing interest in the study were determined to be eligible for participation.

With fewer than 4 percent of the schools participating (although 17 percent had actually expressed interest), the initial response from New England schools was not encouraging. The maximum number of seniors available in those schools was below 5,000. Thus, it appeared that less than 10 percent of the testing goal for this study would be met if PsyCor followed the original plan of testing seniors in October 1982.

Approximately one-quarter of all the schools receiving invitations had replied to PsyCor's marketing efforts. Of the 50 schools responding negatively, almost all cited reasons for the decision. The most frequent was "inability to find the necessary testing time," followed by having DAT scores already available for the students. Several said their testing program was already complete. One school would participate if the testing were voluntary; another preferred to test sophomores only.

A few of the schools referred to previous unfortunate experiences with ASVAB testing and/or DoD recruiters. One respondent was not willing to have DoD contact students for any reason; another declined to participate in a test that was **mandatory** for all seniors. On a more positive note, several schools expressed support for the study, and reported they would participate if students could be tested earlier than the senior year.

It appeared that participation would be limited because of the restrictive nature of the invitations (a May invitation for schools to test seniors in October on a mandatory basis). Because additional data were needed and some nonparticipants had indicated support for the concept of the study, OASD(MI&L) requested that the Psychological Corporation extend the testing time into the Spring of 1983. PsyCor agreed to the extension, and information packets were sent in October to 208 schools from a list provided by DoD. The schools were invited to participate in the Spring continuation with the testing of juniors and/or seniors.

The population of schools made available for the pilot project was **not** representative of the nation's schools, or in this instance, even of those in New England. The selection had been made at the Interservice Recruitment

Committee level of schools which had not used ASVAB, and in which the local representatives had no expectation of scheduling the DoD student test.

In this admittedly difficult market, a total of 25 high schools participated in the Fall 1982 portion of the DAT project, and 3354 seniors were tested. For the Spring 1983 extension, 24 schools tested 401 seniors and 3075 juniors. This produced a total of 6830 students tested in 40 schools for the entire project (9 schools participated in both portions). The participation rates by type of school were nearly identical for the Fall and Spring tests. Twelve public, 10 parochial, and 3 private schools took part in the Fall, while the corresponding numbers for the Spring were 11 public, 10 parochial, and 3 private. Five public and 4 parochial schools participated in both the Fall and Spring testing.

C. SCHOOL AND PUBLIC REACTIONS

Although school reactions to the Defense-sponsored Differential Aptitude Testing pilot program were not surveyed directly, school participation rates did provide an indicator. Parochial schools were considerably more likely to participate than were either public or other private institutions. About 25 percent of all parochial schools contacted, and about 10 percent each of public and private schools, participated in the PsyCor study.

Because the invitations extended to the schools included clear statements about Defense sponsorship of the study and the students' right to release or withhold their personal information, it was anticipated that there would be no negative reactions from the parents or governing boards of schools which chose to participate. This appeared to be the case in all but one school.

The principal of a public school in Massachusetts had agreed to participate in the study, and tested about 500 seniors in the Fall. He then had to destroy the student answer sheets because an angry parent objected to the local school committee [board]. The concerns centered around student participation in a Defense-sponsored testing program, and objections to the DoD questionnaire which was alleged to be an invasion of privacy.

What seemed to be a problem of internal communication in one school system was reported by local news media. This resulted in several Boston-area newspaper articles and a request for investigation by the Ethics Committee of the

American Psychological Association (APA). The APA Ethics Committee found (Fisher, 1983) no conflict between this program and sound ethical principles, since it was made clear to the students that DoD sponsored the test, and students could choose not to complete the questionnaire.

An article about DoD-sponsored testing also appeared in The American School Board Journal. In its report ("A Military Recruiting," 1983), the Journal included references to the Ann Arbor, Michigan schools' participation in the American College Testing (ACT) Program's pilot project and mentioned ACT's concern about not only informing parents, but also involving them in the students' testing process. (The articles are included as Appendix B.)

D. RESULTS

The Psychological Corporation project tested 6830 students in 40 New England high schools, far short of the goal of 50,000 students tested. The objective of expanding the awareness of high school seniors (and later juniors) to opportunities available through military service was met, however, in the participating schools.

The project was well received in schools which chose to participate. The participation rate increased somewhat from Fall to Spring, as shown in Table 7. If only eligible schools had been contacted initially, the participation rate for Fall would have approached 10 percent.

TABLE 7

**PARTICIPATION OF SCHOOLS AND STUDENTS IN
PSYCHOLOGICAL CORPORATION PILOTS**

<u>Session</u>	<u>Schools Contacted</u>	<u>Number/Percent Participating</u>	<u>Students Tested</u>	
			<u>Total</u>	<u>Average Per Session</u>
Fall 1982	693 ^a	25/ 4	3354	134
Spring 1983	208	24/12	3476	145

^aIncluded ineligible schools not selected for participation.

Student participation rates for the "mandatory" testing were higher in the Fall for all schools. The testing of about 95 percent of their seniors gave private schools the highest rates in the Fall, while parochial schools took the lead in the Spring (about 92 percent of juniors and seniors testing). Participation was somewhat higher among males in the Fall, but no significant differences were evident between percentages of males and females tested during the Spring testing. The ethnic composition of the students tested was consistent for both the Fall and the Spring studies: Whites accounted for about 94 percent, Blacks for about 3 percent, and Hispanics for about 2 percent. In addition, private schools reported testing about 10 percent Oriental students in the Spring.

An estimated AFQT score had been developed from an equating study in which both DAT and ASVAB subtests were administered to Air Force and Army personnel (PsyCor, 1983). The selected subtests (DAT Verbal Reasoning [VR] and Numerical Ability [NA]; ASVAB Arithmetic Reasoning, Word Knowledge, Paragraph Comprehension, and Numerical Operations) were administered to 295 Air Force recruits at Lackland Air Force Base, Texas, and to 292 Army recruits at Fort Dix, New Jersey. Using a final sample of 586 subjects, after the elimination of one unusable score, PsyCor staff computed correlation coefficients among the VR+NA score of the DAT, raw scores on the four ASVAB tests, and the AFQT score. The results suggested that the sample of recruits performed at about the same level as a nationwide sample of eleventh graders when compared to the Fall 1980 standardization sample for the DAT (mean--50.6; standard deviation--19.5).

The correlation between the VR+NA score and the AFQT score was .78. The multiple correlation coefficient was also .78, leading PsyCor to conclude that the simple sum of raw scores on the VR and NA tests could not be measurably improved as a predictor of AFQT. The use of Service personnel for the equating eliminated any scores in Category V. Thus, PsyCor reported estimated AFQT scores for Categories IVA and IVB- (i.e., IVB and below) for students in the pilot, rather than estimating the boundary between Category IV and Category V.

Overall, the ability levels of the students tested were apparently well above average (about 75 percent in AFQT Categories I-III A). Table 8 shows the profile of estimated AFQT scores for DAT-tested juniors and seniors in participating high schools in the New England States, as well as the nationwide profiles for the student ASVAB, the 1980 Youth Population, and DoD accessions.

TABLE 8

**AFQT CATEGORY DISTRIBUTIONS (PERCENTAGE): STUDENT ASVAB
AND DAT, YOUTH POPULATION, AND DOD ACCESSIONS**

<u>AFQT Category</u>	<u>Student ASVAB 1980^a</u>	<u>DAT Estimate^b</u>	<u>1980 Youth Population^c</u>	<u>1980-81 Accessions^d</u>
I	1.6	8.4	4.4	2.8
II	15.5 } 32	44.4 } 73	32.7 } 53	30.3 } 54
IIIA	15.2	20.4	15.9	20.9
IIIB	16.2	15.5	15.8	26.4
IV	40.7 } 68	6.5 } 27	23.8 } 47	19.6 } 46
V	10.7	4.8	7.4	0.0

^aUSMEPCOM computer files, School Year 1979-1980. AFQT Score Range 1-99; Mean 50.
SY 1979-80 junior and senior ASVAB data used for comparison with 1980 Youth
Population. Juniors and seniors in Categories I-IIIA in SY 1980-81: 32.5 percent;
SY 1981-82: 31.9 percent; and, SY 1982-83: 33.9 percent.

^bPsyCor Final Report, July 1983. DAT IV=IVA; DAT V=IVB and V.

^cProfile of American Youth, OASD(MRA&L), March 1982.

^dDefense Manpower Data Center files, FY 1981.

Students tested in these schools in New England appeared to be far above average when compared to those tested with student ASVAB or in the National Youth Population. This seemed consistent with the representation of private and parochial schools in the sample, and with scoring patterns for nationally-administered instruments such as the Scholastic Aptitude Test (SAT). While sex differences were not great, males typically earned higher estimated AFQT scores in the Fall testing and females scored higher in the Spring, as shown in Table 9.

When offered the chance to learn more about military opportunities, about 38 percent of the students tested with the Defense-sponsored DAT chose to receive the information directly from recruiters (Table 10). Another 31 percent preferred to have PsyCor mail the information to them. Male students were more inclined to receive the information directly, while females preferred the direct option in the Fall and the indirect option in the Spring.

TABLE 9

**PERCENTAGE AND MEAN ESTIMATED AFQT CATEGORY
OF DAT-TESTED STUDENTS REQUESTING CONTACT,
BY GENDER AND TEST SESSION**

	<u>FALL 1982</u>			<u>SPRING 1983</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Request Contact	66	70	68	70	70	70
Estimated AFQT	II	IIIA	II	IIIA	II	IIIA

The 38 percent of DAT-tested students releasing their scores to DoD was appreciably higher than the 27 percent of juniors and seniors in the initial pilot project in Sacramento, California (Lee et al., 1982). Since juniors in the initial pilot had shown more interest than the seniors in hearing directly from DoD (35 percent of the juniors released their scores), this may have indicated a difference between seniors in the participating schools in New England and those in Sacramento, or may have reflected societal changes from 1981 to 1983 (e.g., economic, resurgence of patriotism, etc.).

The low percentages of student ASVAB testing in New England had given rise to a notion among some recruiting and Defense manpower personnel that school counselors in that region were opposed to the military test battery. An alternate interpretation would have been that the counselors were actually opposed to the military. In this context, it was interesting to note that although only about 12 percent of the invited schools chose to participate in this program of Defense-sponsored DAT testing, 70 percent of the students tested expressed an interest in receiving more information about Defense programs. This may have indicated a lack of attention from Service recruiters toward schools considered low priority or "difficult" (i.e., refused ASVAB, were unenthusiastic toward military recruiting efforts, had few or no graduates enlisting), or may have signalled that school officials

were more restrictive of military information than desired by the students.⁵

TABLE 10

**PERCENTAGE OF DAT-TESTED STUDENTS REQUESTING
CONTACT, BY GENDER AND TESTING SESSION**

<u>Session</u>	<u>Gender</u>	<u>Contact Requested</u>	
		<u>Direct</u>	<u>Indirect</u>
Fall 1982	Male	41	25
	Female	37	33
	Total	--- 39	--- 29
Spring 1983	Male	42	28
	Female	32	37
	Total	--- 37	--- 33

When the DAT leads were compared to the leads available from DoD student ASVAB testing, it was noted that

⁵A recent report by the Educational Testing Service (Hilton, Schrader, & Beaton, 1983) provided some support for the hypothesis that school counselors and teachers may not have been as willing to suggest the military as an option as were others in the student's life. When asked what significant others thought they "ought to do after high school," seniors reported their counselors and teachers were less likely to say "military" than were their parents or peers. The differences were widest in New England, as shown below.

When asked, "What does your father [etc.] think you ought to do after high school?", the percentages answering "military" were as follows:

<u>New England</u>	<u>Father</u>	<u>Mother</u>	<u>Counselor</u>	<u>Teachers</u>	<u>Peers</u>
All Students	5.6	3.7	0.8	0.7	3.2
Males	8.5	5.8	1.3	1.0	6.0
Females	3.4	2.0	0.5	0.4	1.1

about 70 percent of the students tested with the DAT requested either direct or indirect contact from the military. Of these leads, 73 percent were estimated to be in AFQT Categories I-III A. This percentage compared favorably with both the student ASVAB and Defense-sponsored ACT/CPP for quality of leads provided to recruiters.

The Psychological Corporation found no important relationship between the type of contact authorized and the estimated AFQT category of the student. This held true for responses to most of the DoD questionnaire items as well, with the exception of "plans after graduation." In responding to this question, students with estimated scores in AFQT Category II chose "four year college" more frequently than other options. Students with an estimated AFQT in Category IIIB tended to choose "get a job." For those students choosing the option of "join the military," the estimated AFQT was typically in Category III A.

Students releasing their information for direct contact by DoD were more likely (60 percent) to report that their parents were "neutral" or that they "don't know" their parents' attitude toward the student's joining the military. From 75 to 90 percent of all students in the Fall and Spring studies indicated that their guidance counselor had not discussed military career opportunities with them.

About two-thirds of the students said they were aware that qualified persons could select training before entering the military. Males chose the affirmative response with greater frequency than females. There was a slight tendency for these better-informed students to authorize direct contact, rather than indirect contact or none at all.

The higher ability of the students who expressed interest in receiving military information, plus the additional information available from the DoD questionnaire, provided recruiters with an excellent starting point for their contacts. The use of these leads by the Armed Services, as well as any impact on the student ASVAB associated with DoD-sponsored commercial aptitude efforts, will be discussed in Chapter V.

V. EVALUATION OF SUPPLEMENTAL COMMERCIAL TESTING

A. AVAILABILITY OF DATA

The evaluation of efforts to supplement the Defense Student Testing Program with commercial aptitude tests was based on information provided by all organizations involved in the pilot projects. The information included the results of surveys by the testing companies and recruiting commands, specific supplemental aptitude testing data, student ASVAB activity, and recommendations. The method of reporting, the metric, and the completeness of the information varied considerably from source to source.

The American College Testing Program and The Psychological Corporation provided information about reaction in the secondary school community to Defense sponsorship of a commercial instrument. ACT also provided data from follow-up surveys of school officials and students, and described the characteristics of participating students.

Each of the recruiting commands provided such information as it deemed appropriate, in reply to the request for data from the Office of the Secretary of Defense (OSD). The Service responses ranged from reports by school, to summaries of command surveys, to anecdotal comments from the field. These varied in length and in the amount of information provided. Excerpts are included, with the reports attached as Appendix C.

MEPCOM provided indications of impact on the student ASVAB program in terms of actual testing activity among schools participating in the pilot projects. Test coordinators and test specialists in participating MEPSS also were surveyed for their perceptions of DoD-sponsored commercial aptitude testing. The Services provided some feedback about school attitudes toward using ASVAB, and any changes in test usage attributed to the commercial pilots.

B. QUALITY OF LEADS

A major factor in the decision to undertake commercial testing pilot programs had been the recognition that the student ASVAB was not reaching enough higher-ability young people. Both commercial pilot programs greatly exceeded

the percentage of junior and senior student ASVAB test-takers with estimated AFQT scores in Categories I-III A.

The students who participated in the CPP and DAT pilot programs were average to above-average in the abilities measured by these instruments. They were almost twice as likely to score in Categories I-III A as were ASVAB-takers (Table 11). This difference was demonstrated most dramatically in New England testing with the DAT, which included a high proportion of private and parochial schools. The ACT sample, from the Midwest and the Pacific coastal states, appeared quite similar to the 1980 youth population, and also resembled closely the CPP national profile.

TABLE 11

AFQT CATEGORY DISTRIBUTIONS (PERCENTAGE): STUDENT ASVAB, YOUTH POPULATION, CPP, AND DAT PILOT PROGRAMS

<u>AFQT Category</u>	<u>Student ASVAB 1983</u>	<u>1980 Youth Population</u>	<u>ACT/ CPP Estimate</u>	<u>DAT^a Estimate</u>
I	1.8	4.4	8.6	8.4
II	16.6 } 34	32.7 } 53	32.7 } 57	44.4 } 73
III A	15.5	15.9	15.6	20.4
IIIB	16.5	15.8	20.7	15.5
IV	39.9 } 66	23.8 } 47	22.2 } 43	6.5 } 27
V	9.5	7.4	0.3	4.8

^aCategory IV=IVA; V=IVB and V.

Because the percentages of students with estimated scores in AFQT Categories I-III A were much higher for those tested with the subsidized commercial tests, a comparison was made of actual student ASVAB AFQT scores in the same MEPS. Student ASVAB testing profiles for the MEPSs involved in the CPP and DAT pilot projects were compared with the national data for junior and senior students tested with ASVAB in 1982-1983. The percentages scoring above the mean were slightly higher in the pilot MEPS.

Nationwide, 78 percent of the high schools tested 12 percent of their juniors and seniors with ASVAB (Table 12). Of the juniors and seniors tested, 34 percent achieved

scores in AFQT Categories I-III A. The highest percentage of schools testing with the student ASVAB was found in the New England MEPSSs, as was the largest percentage of juniors and seniors scoring in AFQT Categories I-III A. The CPP and DAT pilot MEPSSs, as was expected, tested smaller percentages of their juniors and seniors than the national average.

TABLE 12

**MEPS COMPARISONS FOR SY 1982-83: PERCENTAGES OF SCHOOLS
AND JUNIORS/SENIORS TESTED, AND JUNIORS/SENIORS
SCORING IN CATEGORIES I-III A IN EACH GROUP**

<u>Student ASVAB Testing</u>			
<u>MEPSs</u>	<u>Percent Tested</u>		<u>Percent Scoring in</u> <u>Categories I-III A</u>
	<u>Schools</u>	<u>Juniors/ Seniors</u>	<u>Juniors/Seniors</u>
DAT Pilot	82	9	38
CPP Pilot	70	7	36
All MEPSs	78	12	34

Data from MEPCOM ASVAB Institutional Testing Report,
SY 1982-83 summary, as of 30 June 1983.

Students participating in the pilot programs expressed varying degrees of interest in receiving further information about the Armed Services. The interest differed with gender, time of testing (i.e., Fall or Spring), and geographical location, and appeared highest among male juniors.

Gender differences were more noticeable in the Midwest and West, with females much less likely to request either direct contact from recruiting representatives or information through the mail. In New England, both male and female students were receptive to hearing more about the military. The patterns of requests for contact are shown in Table 13, by gender, location, and the type of contact preferred.

TABLE 13

**PERCENTAGE OF PILOT-TESTED STUDENTS REQUESTING CONTACT,
BY GENDER, LOCATION, AND TYPE OF CONTACT REQUESTED**

<u>Location</u>	<u>Gender</u>	<u>Contact Requested</u>	
		<u>Direct</u>	<u>Indirect</u>
Midwest/West (ACT)	Male	23.5	52.8
	Female	10.0	38.0
New England (PsyCor)	Male	41.5	26.5
	Female	34.5	35.0

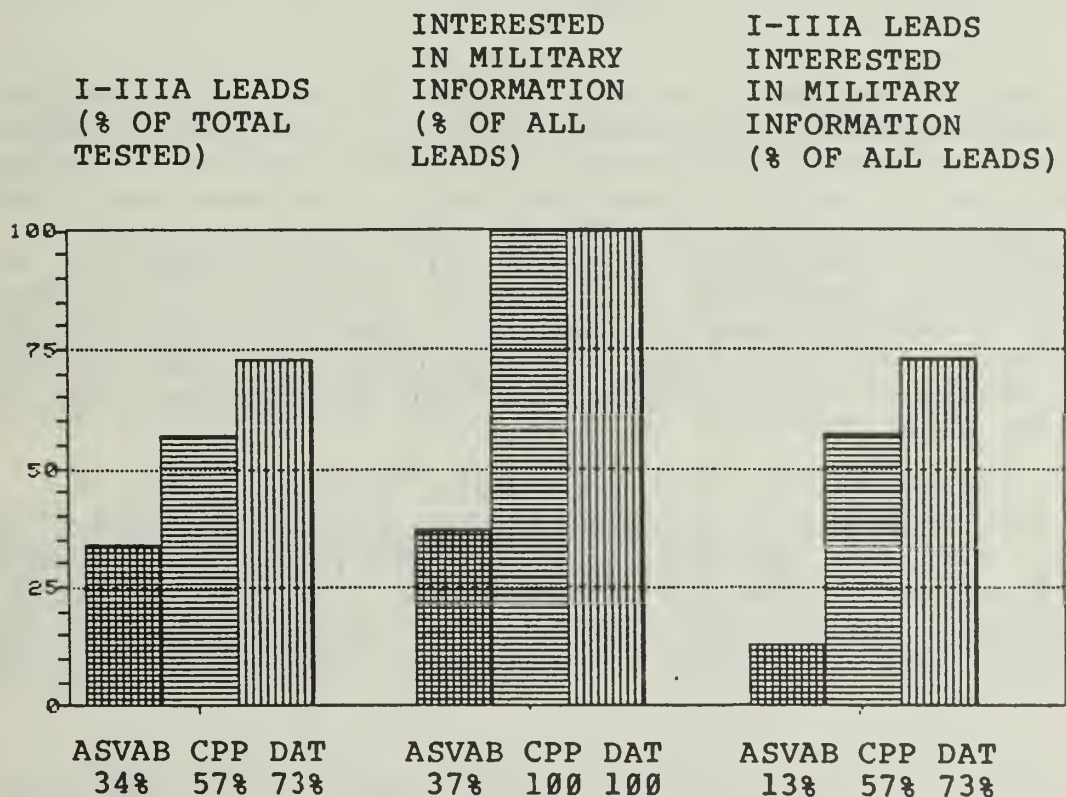
In each of the pilot projects, interest in receiving information increased for the second testing session. This was evident especially among the female students. This change may have been a product of the longer planning time available to school personnel, with correspondingly lower pressure to rush students through the pre-test paperwork. In the ACT pilot, some portion of the change may have been attributable to the reversal of the release items for the Fall testing. The student was offered first the opportunity to release his or her information directly to the Service; the option of receiving information through the mail was listed second. The opportunity to receive information from ACT had been offered first for the Spring testing.

Although the proportion of total leads available from the pilot programs was lower than from the student ASVAB, the percentages of AFQT Category I-III A leads were far higher. When the degree of student interest in military information was included in the equation, the pilot programs had a clear advantage: 100 percent of the leads from commercial testing had expressed interest by actively requesting information from a Service or Services. These students were expected to be receptive to learning more about training and educational opportunities in the military.

By comparison, about 37 percent of the ASVAB leads indicated their plans were either "military" or "undecided," and, thus, were expected to be interested in learning more about military programs. The anticipated percentages of military interested leads with scores in

AFQT Categories I-III A were as follows: ASVAB--34; ACT--57; DAT--73. The DAT scores reflected only testing done in selected New England schools, and were not considered to be nationally representative. The ACT results, on the other hand, appeared representative of both the CPP national sample and the 1980 youth population. (Leads from ASVAB and the pilot programs are depicted in Figure 2.) The ASVAB AFQT percentages may be slightly higher than the national average for the geographical areas tested with CPP (2 percent) and DAT (4 percent).

**LEADS AVAILABLE FROM PILOT PROJECTS AND STUDENT ASVAB:
AFQT CATEGORY I-III A AND INTERESTED IN
MILITARY INFORMATION^a**



^aLeads interested in military information includes ASVAB "military" plus "undecided" responses and CPP or DAT requests for direct or indirect contact.

Figure 2

The first graph, "I-IIIA Leads," shows the expected percentages of leads which fell into the upper half of the AFQT distribution. "Interested in Military Information," the second graph, depicts the percentage of ASVAB leads indicating plans after graduation as "military" or "undecided," and the percentages of students in the commercial pilots who actively requested further military information.

The third graph, "I-IIIA Leads Interested in Military Information," shows the percentages of all leads expected to qualify in AFQT Categories I-IIIA and expressing interest in military information. The CPP pilot appeared to produce more than four times as many quality leads as ASVAB (57 vs. 12.5 percent). Because the students tested in the CPP pilot appeared representative of high school juniors nationally, the CPP results were used in drawing comparisons between the commercial aptitude testing pilots and the student ASVAB.

As the indirect leads were considered (those students who had requested information through the testing organization), two subcategories emerged. The first was a measurable group of students who returned a business reply card to request further information. This was followed by an unmeasurable group who took the initiative themselves and contacted a Service representative directly. The second group of students may, or may not, have told recruiter(s) that they had taken the DoD-sponsored aptitude test and were following up on information they had received from the testing organization.

The Air Force found (R.R. Campbell, memorandum for W. S. Sellman, OASD(MI&L), 2 July 1984) that 10.5 percent of those students became direct leads by returning the card to request more information. This compared with a 2.4 percent rate of return for business reply cards from the Joint- Service DAT pilot.

As of 30 September 1983, the Joint Recruiting Advertising Program (JRAP) had turned over 50 leads to the Services from cards returned by students who had received DoD information from PsyCor (Air Force--18; Army--10; Navy--13; Marine Corps--9) (Y. LaPorte, personal communication, 17 October 1983). The projected return rate had been in the range of 2-4 percent, for this type of mailing in which no promotional "giveaway" item was offered.

C. USER REACTIONS

The reactions and comments of each participating group were considered and reported separately. Information about the schools is followed by a section for each of the Services and MEPCOM.

1. Participating Schools

The first indication of reactions from the secondary school community toward Defense sponsorship of commercial aptitude tests came from the initial pilot project in Sacramento, California. That response was favorable, and an accurate indicator of reaction to the 1982-1983 pilots.

Schools which had been selected for Defense-sponsored commercial testing largely on the basis of having refused to participate in the student ASVAB program seemed receptive to the use of other well-regarded instruments. The participation rate among schools contacted by the American College Testing Program was 1 in 5, with more than 150 students tested in each session. The primary reason for nonparticipation expressed by respondents was "lack of time."

In New England, about 1 in 10 of the schools contacted by The Psychological Corporation agreed to participate. The reasons cited for declining the invitation included lack of time or scheduling difficulties, with some already having DAT scores available for their seniors. An average of 140 students were tested in each session in this pilot.

Students participating in the ACT pilot program were given the opportunity to express their feelings in a survey made some time after the testing session, but before they had received any additional military information. About 87 percent of the students felt the testing had been a positive experience, and only 4 percent thought Defense sponsorship was a "poor idea."

More than 1 in 4 of the students reported having an increased awareness of Defense opportunities as a result of the testing. This was interesting because the survey was made before any follow-up recruiting contact occurred or any information had been mailed. The experience of completing the supplemental questionnaire, perhaps coupled with counselor discussions, may have been the catalyst for the heightened awareness.

A survey of the school officials who served as project coordinators provided feedback from counselors,

administrators, parents, and school boards. ACT received responses from 75 percent of the schools participating in the pilot. The project coordinators were very positive about the use of the CPP, and over 90 percent felt that DoD support of the project was a good idea. Highly positive attitudes about the project were also attributed to most school boards, superintendents, and principals.

Positive reactions were expressed in person during the March 1983 convention of the American Personnel and Guidance Association (since renamed American Association for Counseling and Development) by counselors participating in, or aware of, the pilot projects. In addition, verbal comments and letters expressing interest and support for the concept were received by the author, ACT staff, and recruiting service personnel since the initial pilot project ended. These comments often included the perceptions that the image of DoD programs was enhanced by affiliation with a well-regarded commercial test, and that cooperation shown toward military recruiters would increase in the participating schools.

2. Army

In its final summary of the ACT 1982-83 pilot project, the Army reported favorable reactions from both the schools and the District Recruiting Commands (DRCs).

Some recommended continuing this program only for schools not ASVABing; some said expand it; but all said continue it! The initial results are favorable and certainly the contractor has done a creditable job. Improvements/refinements are anticipated this year in the program (Zaldo, 21 October 1983).

Commenting on the student results provided to recruiters, the Army stated that the information "provided good insight on prospective applicants." In discussing the value of the CPP and of ASVAB, it was noted that "...in some cases, the commercial test was the instrument that permitted increased access to schools."

The recruiting districts attributed these reactions to participating schools: "CPP arouses the interest of students who may not be stimulated by ASVAB participation." "Counselors prefer the results received [from CPP] to those received from ASVAB testing. ACT has credibility with the educational community not enjoyed by the authors of ASVAB."

The self-reported DRC responses included:

The ACT/CPP is most helpful in gaining access to areas where little or no information prevails. Although it is not as effective as ASVAB 5, it often propels a school to ultimately utilize the ASVAB test.

Recruiter reaction seems to be favorable with comments such as: "test provides much more detailed information with which to conduct interviews," and "easily readable format for all involved with the program."

The program can be very economical and most useful in eventually getting contracts. It is an excellent method of public service to the schools. CPP arouses the interest of students who may not be stimulated by ASVAB participation. CPP should be applied on a more widespread level.

The Army final report pointed out that a possibility existed that the CPP was viewed in the field as a potential replacement for the student ASVAB, and therefore, as competitive. This belief, despite Headquarters statements that such was not the case, could have had an adverse effect on reporting efforts for the pilot program and on the ASVAB program itself, depending upon each reporter's views.

In contrast to the positive reactions expressed for the ACT pilot, Army reported mixed reactions to the PsyCor project (Zaldo, 21 October 1983). Most of the New England schools were said to favor the program, although some had reservations about completing the DoD questionnaire. Some wished to continue with the DoD-sponsored DAT program, and a few indicated they would like to use ASVAB.

Recruiting districts were split in their reactions to the PsyCor/DAT pilot: some wished to discontinue it completely; others wished to expand the effort. The reported problems included a perceived lack of communication with the contractor at the local level, and the delayed receipt of student results and leads⁶. Most recruiters were said

⁶N.B.: (1) Communications between the DRC and the contractor were neither expected nor encouraged by USAREC Headquarters personnel. (2) PsyCor mailed Student Results to the address designated by each Service. Any delay in receipt by the field recruiter would be expected to have resulted from handling procedures within the Service.

to feel that the additional information in each lead was very helpful and made telephonic contact more comfortable, "but it did not seem to translate into contracts."

One participating DRC which experienced some negative results from the pilot reported that "most area commanders feel that the schools that were chosen did not have a priority that deserved any detailed attention. Another DRC commented on "three positive items: the test is shorter [sic] than the ASVAB, it appears to prequalify the individual, and permits parents and counselors to express their views."

The information contained on the results sheets was considered extremely valuable by the field recruiter. Recruiters felt they had a real handle on the prospect and his/her parents, and was [sic] able to start effective telephone conversations which resulted in appointments. The predicted AFQT seemed to be fairly accurate. Recruiters felt comfortable with the idea that the students wanted to hear from them.

When summarizing district reports on the New England pilot project, USAREC commented:

Commercial testing through the Psychological Corporation seems to have been less than a resounding success due to the low numbers tested[,] and that testing was essentially done in schools that had a low priority to the recruiting force. The testing did not, apparently, have an appreciable effect on turning the situation around in New England, at least in terms of generating increased access to difficult schools or generating contracts. That it provided leads not previously available is true, but those leads were not converted into contracts.

Some specific recommendations from the districts included: "If the program were to continue, DRCs should have more input and control over which institutions are approached to participate." "The [DRC] recommends that the program be expanded." "Results Sheets must be returned to each Service at the same time."

These comments from the field suggested an incomplete flow of information about: the DAT pilot project, the roles of the various participants, and the fact that school

selection was almost entirely dependent upon MEPCOM and IRC choice. While such confusion is not unexpected in a large and complex organization such as the Department of Defense, these factors may well have affected the effort expended in working with leads and in reporting outcomes attributable to the pilot testing.

USAREC also expressed some concern about the degree of cost-effectiveness of the commercial testing program, when measured strictly in terms of contracts resulting from the pilots. However, the initial purposes of expanding the Service presence into schools not participating in student ASVAB testing, and of bringing military training and education programs to the attention of higher-ability students have to figure into the equation.

3. Air Force

The Air Force commented only about the ACT portion of the commercial testing project. Their response was positive, but pointed out that

the current favorable recruiting environment makes comprehensive evaluation of commercial testing difficult, particularly when attempting to measure new contracts which resulted from this program. However, our decision to continue funding the program in FY84 is indicative of our positive reaction to this initial effort. We believe the increased receptiveness of participating schools to military recruiters...will provide long-term dividends as the economy improves and recruiting becomes more difficult (Keesling, 27 October 1983).

The reactions of participating schools also were reported to be favorable: 74 percent were more receptive to information about the military; and 37 percent were more interested in ASVAB use. On the other hand, however, 63 percent of the schools were reported to be less interested in using ASVAB.

When presented with three options, 87 percent were said to prefer commercial tests to ASVAB, while 13 percent preferred DoD-sponsored commercial tests in combination with ASVAB. None of the schools indicated a preference for the elimination of DoD student testing.

When the recruiting squadrons were surveyed for their reactions to the commercial testing program and its future,

79 percent found the pilot valuable, and 71 percent said it should definitely be continued. Their responses are presented in Table 14.

TABLE 14

**USAF RECRUITING SQUADRON REACTIONS TO
THE COMMERCIAL TESTING PILOT
(PERCENTAGE OF RESPONSE)**

Value to Recruiting

Extremely Valuable	Somewhat Valuable	No Opinion	Somewhat Worthless	Extremely Worthless
58	21	17	0	4

Future Use

Definitely Continue	Probably Continue	No Opinion	Prob. Not Continue	Def. Not Continue
71	12	4	8	4

In addition, Air Force noted that leads from the commercial test were received when civilian jobs (especially in Michigan where the majority of the Air Force-sponsored testing occurred) were extremely scarce and the military recruiting environment was quite favorable. They pointed out that the value of the CPP leads could not be measured accurately under such conditions, but would be more apparent during difficult recruiting times.

When considering future use of commercial testing as a supplement to the DoD high school program, the Air Force found the lack of student telephone numbers on the recruiter report to be a serious limitation. This was subsequently identified as one of the changes to be incorporated into the 1983-84 continuation of the supplemental pilot program.

4. Navy

Although not a sponsor of the ACT Career Planning Program pilot project, the Navy provided some survey

information (Lindahl, 1983) by school and by state. Navy Recruiting Districts (NRDs) reported that 77 percent of the schools participating in the CPP pilot showed no change in their interest in the student ASVAB. Eight percent indicated more interest, while 15 percent were less interested in ASVAB.

The interest in ASVAB reported for the New England pilot was quite similar. NRD reports for the PsyCor pilot showed 88 percent of the schools were unchanged in their interest in using the student ASVAB. Another 5 percent showed more interest, and the remaining 7 percent were said to be less interested in using the DoD aptitude battery. Table 15 summarizes these reactions for the two pilots.

TABLE 15

**NAVY SURVEY OF ASVAB INTEREST AMONG SCHOOLS
IN THE CPP AND DAT PILOT PROJECTS**

(NUMBER/PERCENTAGE OF SCHOOLS)

<u>Pilot</u>	<u>Schools Surveyed</u>	<u>Interest in ASVAB</u>		
		<u>More</u>	<u>No Change</u>	<u>Less</u>
ACT/_CPP	270	22/8	207/77	41/15
PsyCor/DAT	43	2/5	38/88	3/7

In addition, Navy districts indicated the preferences of the participating schools if offered a range of options for Defense-sponsored testing: a commercial aptitude test, student ASVAB, both a commercial aptitude test and student ASVAB, or no Defense testing. They reported (Table 16) about equal responses in each of the four categories among schools in the CPP pilot. There was, however, a slightly greater preference expressed for the DoD-sponsored commercial aptitude test, used either alone or in combination with the student ASVAB. Among New England schools surveyed, the use of a commercial instrument was clearly favored.

TABLE 16

**NAVY SURVEY OF DEFENSE TESTING PREFERENCE AMONG SCHOOLS
PARTICIPATING IN THE CPP AND DAT PILOTS**

(NUMBER/PERCENTAGE OF SCHOOLS)

<u>Pilot</u>	<u>Schools Surveyed</u>	<u>Test Preferred</u>			<u>No Defense Testing Wanted</u>
		<u>Commercial</u>	<u>Both</u>	<u>ASVAB</u>	
ACT/_CPP	258	70/27	69/27	63/24	56/22
PsyCor/DAT	43	32/74	6/14	0	5/12

Efforts to provide leads to higher-ability students are intended ultimately to improve the "quality" of individuals entering the Services. Although it has proven difficult to determine what percentage of students who take the ASVAB in high school actually do enter the military within two years, some steps have been taken in that direction (Lee, 1979; Lee et al., 1982). To assist in studying the process for other Defense-sponsored instruments, the Navy provided totals of seniors who had contracted to enlist from schools participating in the commercial aptitude pilot projects.

The number of graduating seniors contracting to enlist in the Navy, from the 281 ACT/_CPP pilot schools for which reports were provided, increased by 13 percent for 1983. These seniors, the class of 1983, represented juniors tested with the CPP in the Spring of 1982. It appeared that, for all locations involved in the CPP pilot except Iowa, the participating schools became more productive for Navy recruiters during the pilot program, even though no direct leads were to have been made available to Navy representatives.

In contrast, the number of New England seniors contracted for Navy declined appreciably for FY 1983, in the 43 DAT pilot schools for which reports were provided. The NRDs reported contracting fewer than half as many seniors in these schools as they had in the previous two years. The reason for the overall decline in reported

contracts was unknown⁷. The Navy report showed that in several instances contracts had been written in a participating school; although a like or larger number of appointments had been scheduled as a result of the commercial test leads, no contracts were credited to the commercial pilot. Table 17 shows the numbers of contracts written for seniors in the participating schools, by fiscal year.

TABLE 17

**NAVY REPORT OF SENIORS ENLISTING FROM CPP- AND
DAT-PARTICIPATING SCHOOLS BY FISCAL YEAR**

<u>Pilot</u>	<u>Schools Surveyed</u>	<u>Number of Seniors Contracted</u>		
		<u>FY81</u>	<u>FY82</u>	<u>FY83</u>
ACT/CPP	281	353	353	398
PsyCor/DAT	43	88	89	43

Several hypotheses might be advanced for the increase in Navy contracts reported for schools participating in the ACT/CPP pilot. For example, because of the sluggish economy, Navy might have done better in all schools in those districts during this time period, regardless of the experimental program. Or, Navy recruiters might have "tried harder" in those schools, feeling that the supplemental testing sponsored by another Service might otherwise put them at a disadvantage in the marketplace. Perhaps a "halo effect" allowed all the Services to benefit from having military training and educational programs brought to the attention of students through the career exploration experience of the CPP. Or, some entirely different local factors might have been operating in these instances.

Overall, the Navy Recruiting Command did not consider "...pilot program results sufficiently conclusive thus far

⁷Personal communication with Headquarters, Navy Recruiting Command, 21 December 1983, indicated that the reported numbers were to be treated as end-of-year data. The NRDs were required to provide reports to their Headquarters by 1 August 1983.

to permit substantive appraisal of the program as a prospect-qualifying or lead-generating device (Lindhahl, 1983)." The Navy recommendation was to wait for results of the 1983-84 pilot effort, then to review the commercial testing program.

The Navy expressed concern that "...increasing acceptance of and apparent preference for the commercial test by user schools may hinder ASVAB marketing initiatives once more schools are aware of the supplementary program's existence (Lindhahl, 1983)."

5. Marine Corps

The Marine Corps acted as an interested observer to the 1982-83 Career Planning Program pilot and, like the Navy, provided the numbers of senior students contracted for Marine Corps enlistment in participating schools during fiscal years 1981 through 1983. A similar report was provided for the New England schools participating in the DAT pilot. The data were complete for FY 1983 (Lindhahl, 1983).

Seniors contracted for the Marines, in the 302 ACT pilot schools for which data were reported, increased by 30.1 percent in 1982. For 1983, the increase was an additional 13.5 percent. Suggested reasons for the improved recruiting in these schools would resemble those discussed for the Navy. In the New England pilot, however, a report on 25 of the 40 participating schools showed an increase in FY 1982 followed by a decline for FY 1983 (Table 18).

TABLE 18

MARINE CORPS REPORT OF SENIORS ENLISTING FROM CPP- AND DAT-PARTICIPATING SCHOOLS BY FISCAL YEAR

<u>Pilot</u>	<u>Schools Surveyed</u>	<u>Number of Seniors Contracted</u>		
		<u>FY81</u>	<u>FY82</u>	<u>FY83</u>
ACT/CPP	302	215	289	328
PsyCor/DAT	25	25	29	24

The Marine Corps concurred with the Navy Recruiting Command position that the results of the pilot program to date did not permit a final evaluation to be made of its value for generating leads or qualifying prospects. The Marine Corps, however, did join the Air Force and Army in supporting continuation of the ACT Career Planning Program project.

6. MEPCOM

The Military Entrance Processing Command provided information about ASVAB testing in schools participating in the pilot program (Zaldo, 8 March 1983), as well as a summary of comments received from the relevant Military Entrance Processing Stations about school reactions and any impact on the student ASVAB (Zaldo, 21 October 1983). The MEPS comments were reported in question and answer format.

Q: Are schools more receptive to information about the military as a career option as a result of the commercial testing program?

A: Schools seem to be evenly divided on receiving military information. Some want to receive this information, others could [sic] care less. Students appear to be more receptive after taking the commercial test; however, it is not known if it is because of the test or economic conditions at this time.

Q: Are schools more or less interested in using the ASVAB after using the commercial instrument?

A: Schools are less interested in using the ASVAB after using the commercial test.

MEPCOM was concerned that administration of a Defense-sponsored commercial test would have a negative impact on the student ASVAB testing program. The MEPSSs also were tasked to respond to several questions bearing on that concern.

Q. Has the administration of this commercial instrument caused any turbulence in MEPS areas of responsibility that has had any detrimental impact on ASVAB testing?

A. Most MEPSSs feel that the commercial instrument has had some adverse affect on its [sic] ASVAB programs. It has become more difficult to promote the

ASVAB in those schools that took the commercial test.

Q. Have any schools in MEPS areas of responsibility cancelled ASVAB testing because the commercial instrument was not offered to them?

A. No schools have cancelled ASVAB testing because they have not been offered the commercial test. Several schools have threatened cancellation because other schools in its [sic] school district were offered the test and they were not. MEPS personnel and recruiters were able to overcome this threat and administer the ASVAB as scheduled.

In addition, the MEPSs were queried about any schools which declined to schedule ASVAB testing because they had not been offered the commercial test. No such instances were reported.

In view of recruiting command reports of schools scheduling ASVAB as a result of participation in the commercial testing pilot program, and MEPS reports that schools were less interested in the student ASVAB after using the commercial test, it was helpful to have school testing information provided by MEPCOM. Data on actual participation in the ASVAB student testing program shed some light on trends in these schools.

In comparing numbers of students tested during school years 1981-82 and 1982-83, the two years for which data were available for all of the participating schools, MEPCOM reported (Table 19) a slight overall increase in ASVAB usage in CPP-participating schools. Testing data for SY 1982-83 were complete as of February 1983. Additional testing may have occurred during the Spring phase of the student ASVAB program.

MEPCOM also provided information about ASVAB testing in schools participating in the New England pilot program [E. E. Gerding, letter to W. S. Sellman, OASD(MI&L), 1 December 1983; Zaldo, 8 March 1983]. Since reports from the Services and the MEPSs tended to suggest that New England schools participating in the pilot program were generally unchanged in their interest toward using ASVAB, the student ASVAB testing data (through February 1983) shown in Table 20 were interesting.

TABLE 19

**MEPCOM REPORTED STUDENT ASVAB ACTIVITY IN
SCHOOLS PARTICIPATING IN ACT/CPP PILOT**

<u>State</u>	<u>Number of High Schools</u>	<u>Number of Students</u>	
		<u>SY 1981-82</u>	<u>SY 1982-83</u>
California	25	595	462
Indiana	14	1	284
Iowa	44	64	101
Michigan	102	2211	2056
Minnesota	65	751	717
Ohio	19	8	3
Oregon	8	173	85
Washington	14	129	147
Wisconsin	<u>1</u>	<u>0</u>	<u>120</u>
Total	293	3932	3975

Despite the selection for the pilot projects of non-ASVAB-using schools, there was an increase in the numbers of students tested with ASVAB from School Years 1981-82 to 1982-83. The increase from 22 to 264 students tested was significant, with most of the additional testing occurring in Massachusetts.

TABLE 20

**MEPCOM REPORTED STUDENT ASVAB ACTIVITY IN
SCHOOLS PARTICIPATING IN DAT PILOT**

<u>State</u>	<u>Number of High Schools</u>	<u>Number of Students</u>	
		<u>SY 1981-82</u>	<u>SY 1982-83</u>
Connecticut	8	0	17
Maine	6	0	5
Massachusetts	20	22	242
New Hampshire	1	0	0
Rhode Island	4	0	0
Vermont	<u>1</u>	<u>0</u>	<u>0</u>
Total	40	22	264

MEPCOM concluded that the commercial testing program had merit, but "should be evaluated by a disinterested outside civilian agency for recommendations on how to proceed with such a program (Zaldo, 21 October 1983)."

7. Service Overview

The comments from the military commands offered both commonalities and differences. They were summarized briefly to indicate the complexities inherent in both the operation and evaluation of the pilot programs.

MEPCOM reported that the schools were "evenly divided" in their interest in military information after using the DoD-sponsored commercial test. This differed from the Air Force finding that 74 percent of the schools were more receptive. Both MEPCOM and Air Force were in agreement, however, that interest in using the student ASVAB declined after using the commercial instrument (Air Force: 63 percent less interested). Navy, in contrast, had found the majority of schools (77 percent) unchanged in their attitudes toward ASVAB, with only 8 percent showing more interest, and 15 percent less interest in the Defense test.

On the question of preferring the commercial test to ASVAB, MEPCOM found the schools divided, as had Navy (24 percent ASVAB, 27 percent commercial); Air Force, however, had reported that 87 percent preferred the commercial test. If offered both a DoD-sponsored commercial test and ASVAB, MEPCOM reported, "The majority of schools contacted would not consider using both...because of time constraints." This was supported by both Air Force (only 13 percent preferred both tests) and Navy (27 percent) findings. The context in which this question was answered was not clear, but it apparently was construed to mean "use both tests in the same school year," and probably with the same students each time.

MEPCOM reported that, even if offered the option of having no Defense testing, most of the schools queried would not want to eliminate DoD-sponsored tests from their testing programs. Again, the Service reports were in agreement, with approximately one-fifth or fewer of the schools preferring no Defense tests (Air Force: 0; Navy: 22 percent).

In addition to the comments and recommendations reported above from the recruiting field force, one district suggested that: "...program directives [should] specify that the military services are options which should be considered in the career exploration process." This step was, in fact, a consideration in planning for the

1983-84 continuation of the pilot program, in the expectation of ensuring that all participants were exposed to military opportunities early in the testing process. Another comment (Zaldo, 21 October 1983) would have found support in several of the Services:

In order to expose the widest range of students to military opportunities, all students taking the test must agree prior to test administration that they will release their names to the armed forces for contact purposes or they will not be tested. The school must also agree to this stipulation or they will be excluded from the program.

This recommendation overlooked three relevant considerations: (1) no such restriction had been placed on schools participating in ASVAB testing (in accordance with the 1976 Finneran-Mosher agreement that DoD would not attempt to make ASVAB mandatory), (2) it was uncertain whether any school would agree to levy such a requirement on its students, and (3) students who chose absence over forced testing would not be exposed to either the "military as a career choice" orientation or the DoD questionnaire. As reported earlier, the "mandatory" DAT testing had produced a maximum of 90-95 percent attendance, even though the student could choose whether or not to release information; it also produced some parental concerns about ethics and legality.

Concern was expressed about the student release options by another recruiting district. It was recommended that the option of requesting information from the testing organization be eliminated, since it "only reduces the amount of good leads." This comment about leads being reduced because of the indirect option is debatable; one might also hypothesize that every student choosing the indirect option would refuse to receive any military information if that choice were not available.

For two schools reported by Army to have cancelled ASVAB after being offered the DoD-sponsored DAT, the Navy found no change in ASVAB interest. One of the schools, which had tested four students with ASVAB, was reported to prefer the commercial test to ASVAB. The second school, which had used ASVAB to test only 31 and 22 students in the previous two years, was said to prefer both ASVAB and the commercial test. These differing reports suggested something of the complexities facing Service representatives at the IRC level.

D. PROGRAM COSTS

To address the issue of program cost, a comparison was made of various expenses associated with both supplemental testing and the student ASVAB. Total expenditures for the ACT/_CPP pilot were readily available; data for the student ASVAB were provided by HumRRO, which had collected cost figures from MEPCOM as part of the evaluation of the Centralized Marketing Pilot Program (Schneider et al., 1984). (Because the number of students tested in New England was far below the goal, realistically comparable cost figures from the PsyCor pilot were not available.)

The funding for the CPP pilot had been based on a set cost per test, which included: complete pre-test, scoring, and post-test materials and services to the schools; delivery of student reports to recruiters; delivery of military information to students; survey of school and student reactions; monthly progress reports; and the final report summarizing and evaluating the project. Thus, it was possible to determine the costs per test and per lead for the pilot program; it was expected that costs would decrease as the numbers of students tested increased.

With the student ASVAB, however, determining comparable costs was somewhat more complicated. MEPCOM had provided cost figures to HumRRO which included: test materials and research, test administration, and both MEPS and Office of Personnel Management testing. Other student ASVAB program costs were not included, such as the expenses of developing test or promotional materials, and shipping them to the MEPSs and recruiting commands. Some additional items included in the overall MEPCOM budget provided support to the student testing program without being specifically identified for that program.

These costs were believed by MEPCOM and HumRRO to be minimum estimates of the total cost of the student ASVAB program, since only directly attributable items were included. The costs of recruiting command military and civilian support during the ASVAB marketing, administration (test proctors), and score interpretation phases would not be reflected in the MEPCOM budget. Such costs to the recruiting commands occur routinely in support of the student ASVAB, but would not be necessary to support DoD-sponsored commercial aptitude testing.

Student ASVAB costs were reported separately for school years 1982-83 and 1983-84, and for both the centralized marketing MEPSs and a HumRRO-matched group of control MEPSs (Appendix D). The data reported for SY 1982-83

included publication costs for ASVAB testing and marketing materials. Because these were not annual costs, and because the figures varied between the groups of MEPSSs, only approximate costs per test and per lead could be estimated.

It appeared that the cost for each test administered to a junior or senior was slightly lower for the CPP than for the student ASVAB. The cost per lead was lower for the student ASVAB, while the cost for each "quality" lead (students scoring in Categories I-III A who expressed interest in the military or were undecided about their future plans) was about twice as high for ASVAB as for the commercial test.

E. IMPACT ON STUDENT ASVAB TESTING PROGRAM

While some concerns had been expressed about a potentially negative effect on the student ASVAB program in the commercial testing pilot locations, such effects appeared to have been confined to particular schools or MEPSSs. Overall, the Army had reported that some schools were encouraged by their participation in the commercial pilots to schedule their first student ASVAB testing. The Navy had reported very little change in ASVAB interest among the schools participating in the pilots. Their survey of the CPP pilot schools showed about equal preferences for the use of ASVAB, or the commercial test, or both. A slightly smaller segment of the schools preferred no DoD testing at all. In New England, however, Navy reported a significant preference for the commercial test. Since these schools consistently had declined to use the student ASVAB, this preference was not surprising.

Some discrepancies were evident in the ASVAB interest reported for two specific schools by different Services. This exemplified the difficulties inherent in determining a school's position when different military representatives may have been working with different school officials.⁸

Most MEPSSs were reported to believe that the commercial pilots had adversely affected the student ASVAB program. They referred to some situations in which a school had "threatened cancellation" of ASVAB because other schools in the district had been offered the commercial

⁸This situation also may have dramatized the difficulties inherent in obtaining survey information from the field.

test and that particular school had not. MEPS personnel and recruiters were able to intervene and administer ASVAB as scheduled.

MEPCOM testing data confirmed an overall increase in student ASVAB activity in the pilot schools. Although declines were noted in some of the schools, the total testing increased in both the CPP and the DAT pilot areas. Since the testing data provided for SY 1982-83 were not updated after February (Zaldo, 21 October 1983), the final totals of students tested with ASVAB in the commercial pilot schools last year were not known. The annual MEPCOM Spring effort to schedule additional student ASVAB testing may have increased the numbers tested in the commercial pilot schools.

While some difficulties were reported in promoting ASVAB to schools participating in the commercial pilot programs, it must be remembered that most of these schools had been selected specifically because of nonparticipation in the student ASVAB program. Although a decline in testing was reported by some MEPSs, a slight overall increase in the student ASVAB program occurred in schools participating in the supplemental commercial testing pilot.

Chapter VI will summarize the efforts to offer commercial aptitude testing in the DoD Student Testing Program.

VI. SUMMARY AND RECOMMENDATIONS

The Defense student testing program was developed to provide leads to junior and senior students qualified for military training, while also offering a career guidance instrument for use in the nation's high schools and post-secondary institutions. The student ASVAB had consistently reached only about 12 percent of those high school juniors and seniors, with the majority of test-takers achieving below-average ability levels. Methods were explored for supplementing the program with commercial aptitude instruments to expand the awareness of higher-ability students to training and educational opportunities in the military.

After an initial exploration of the concept of Defense subsidization of a commercial test, HumRRO (under a joint MEPCOM-USAREC contract) found that the schools, students, recruiters, and the testing organization were favorably disposed toward the effort. Therefore, a dual project was undertaken in 1982-1983. One pilot, sponsored by the Army Recruiting Command and the Air Force Recruiting Service, used the American College Testing Program (ACT) Career Planning Program (CPP) in the Midwest and West. The second pilot used The Psychological Corporation's (PsyCor) Differential Aptitude Tests (DAT) in New England, and was sponsored by DoD on behalf of all Services.

The commercial test was offered to schools that were primarily non-ASVAB users, a group expected to be less inclined to cooperate with a DoD program than randomly chosen schools would have been. Despite the challenges posed by the school selection process, the CPP pilot succeeded in testing over 48,000 students in more than 300 high schools. The DAT pilot tested just over 6800 students in 40 New England schools.

The schools invited to participate in the CPP pilot were receptive to the concept of Defense sponsorship. The reason given most often for nonparticipation was "short notice" to plan for and fulfill their responsibilities as participants. One student in four reported an increased awareness of DoD opportunities as a result of the testing experience. This response was of interest because the survey was taken before the students had received either direct contact from a recruiter or Service literature provided through the mail by ACT.

In New England, the invited schools were not as receptive to the pilot concept. For the nonparticipants who replied and gave a reason, "lack of testing time" was cited most frequently. PsyCor did not provide additional survey responses for either school officials or students.

The students tested in the CPP pilot represented a cross-section of ability levels, with about 57 percent scoring above the mean. The PsyCor pilot in New England, on the other hand, tested students with above-average ability levels. About 73 percent were estimated to be in AFQT Categories I-III A, in a group with high private and parochial school representation.

Male students were more likely to request either direct or mail contact with the sponsoring Service(s). Both male and female students in the New England pilot appeared somewhat more receptive to receiving military information than their counterparts in the Midwest and West.

The only publicity known to have arisen from the commercial testing pilot projects originated with one Massachusetts school. After an initial adverse reaction in the local press, the question of Defense sponsorship of a commercial aptitude test was referred to the American Psychological Association and also to the American School Board Association. Both concluded (in articles with nationwide audiences) that there was no ethical conflict in such sponsorship, since the DoD role was clearly stated, and students had the option of not providing information. Some positive statements were made about the ACT approach to the pilot concept, in which the schools had been encouraged to involve parents in the testing experience.

Air Force and Army recruiters found the supplemental testing valuable and wanted it to continue. MEPCOM and Air Force surveys reported between 50 and 74 percent of the participating schools were more receptive to information about the military. The Air Force reported that 10.5 percent of the students who had requested additional information by mail returned the business reply cards, thus becoming direct leads. This contrasted with a return rate of 2.4 percent to the four Services from the New England pilot.

The Army expressed concern about the cost-effectiveness of the supplemental testing program. When comparisons were made with the most current information available about student ASVAB costs, it appeared that the cost for each test and quality lead were lower with the commercial instrument. The costs for student ASVAB were based on

estimates believed to be low, and which did not include any recruiting command contributions to the program.

Efforts to link Defense student testing to subsequent accessions have proven difficult, although measures could be developed over time for supplemental commercial testing as they have been for the student ASVAB. The Navy and Marine Corps reports of seniors contracted through FY 1983 in schools participating in the two commercial aptitude testing pilot projects provided a first step toward measuring that relationship for a supplemental test. Further attention must be directed toward enlistments from the graduating classes of 1983 and 1984 in schools that offered the Defense-sponsored CPP and DAT.

The overall impact on the student ASVAB was perceived to be somewhat negative by the Military Entrance Processing Stations in the commercial aptitude testing pilot areas. Reports from the Services, however, had indicated some new ASVAB scheduling among schools participating in the pilot projects. Data provided by MEPCOM confirmed a slight increase in total ASVAB testing for participants in both the CPP and the DAT pilots, with declines reported for some of the schools.

Experimental efforts to supplement the Defense student testing program with commercial aptitude tests were apparently successful in achieving the goals of: providing higher ability leads to recruiters, enhancing the image of the Defense student testing program, increasing the cooperation shown to recruiters in the participating schools, and increasing student awareness of military opportunities solely as a result of taking the test. In addition, recruiters were provided with leads that not only introduced students who had actively expressed an interest in learning more about the Service(s), but also provided a comfortable starting point for initiating contacts with those students. This was accomplished at a cost apparently lower than that of the student ASVAB. Additionally, the commercial testing required no investment of recruiter time until the leads were received.

The pilot programs also fulfilled the intended purpose of revealing weak points or problem areas in either the concept or its execution. Several of these were relatively minor, and were improved upon during planning for the 1983-84 continuation of the ACT/PPP pilot program. Others were more complex, and will require some additional time, communication, and cooperation before a solution can be reached.

An evaluation of the 1982-1983 pilot programs to supplement the student ASVAB with commercial aptitude tests does not lead directly to a recommendation about the immediate future of the concept. Rather, it leads to a discussion of modifications recommended for the continuation of the pilot effort. It is from the evaluation of supplemental aptitude testing through the 1984 school year that recommendations may be offered for any future implementation of DoD-sponsored commercial testing.

Recruiter concerns about the "low priority" of the schools selected for the 1982-1983 pilots had prompted a recommendation that the selection criteria be expanded. Accordingly, schools which had used ASVAB with only a small percentage of their juniors and seniors (e.g., 5 percent) were to be included in the sample with the non-ASVAB-users previously identified.

The absence of a student telephone number had been identified as a weakness in the student report released to recruiters. It was recommended that discussions be opened with ACT about modifying the CPP student answer form to permit capturing this information for 1983-1984.

The order of the release items on the DoD questionnaire appeared to affect student willingness to be contacted directly by Service representatives. The direct contact option had been selected more frequently when it was in the first position, and this placement was recommended.

Lack of information at the local level (Interservice Recruitment Committee: the recruiting districts/squadrons and the MEPSSs) had been cited as a detriment to the pilot projects and to the student ASVAB testing program. Immediate efforts were undertaken to inform the various Service and MEPCOM headquarters regularly about the status of supplemental aptitude testing, and it was recommended that the information be passed on to all IRC members concerned with the pilot testing efforts.

In conjunction with the previous recommendation, it must be noted that the "local confusion" reported from the IRC-level can inspire misconceptions and apprehensions which are communicated to the educational community. The use of commercial aptitude tests to supplement the student ASVAB program, the introduction of a new version of ASVAB for SY 1984-85, and the proposed use of a commercial interest inventory in conjunction with that new form (as recommended by the Defense Advisory Committee on Military Personnel Testing), all combine to raise questions about

the "Defense Student Testing Program" among educators as well as within DoD.

In the spirit of both defining and refining Defense efforts, it is suggested that careful consideration be given to the role and purpose(s) of the Defense student testing program. The time appears right to reconsider some old questions, and to ask some new ones:

--What is the purpose of the DoD student testing program?

- to supply pre-qualified leads to recruiters?
- to provide a service to the schools and students?
- to provide access to high schools for military recruiters?
- to increase student awareness about opportunities for training and education in the Services?

--What percentage of juniors and seniors must be tested annually for the DoD student testing program to serve its intended purpose(s)?

--Is the average ability level of the students tested of concern in fulfilling the purpose(s) of the DoD student testing program?

--If the recruiting commands were not called upon to fund supplemental testing directly, would they object to having the DoD student testing program include one or more commercial tests in addition to ASVAB?

--What changes, if any, would be necessary within MEPCOM in order to accommodate broader responsibilities for student testing?

These questions suggest the range of concerns which deserve attention, and by no means exhaust the possibilities. If there is a compelling reason for the existence of a DoD student testing program, that reason must include a consideration of the needs of the schools, the students, and the field recruiters. In the initial pilots, the participating schools spoke affirmatively on the question of a Defense-sponsored commercial aptitude test. Recruiters who used the leads found them valuable. It remains to be determined whether the benefits are great enough to warrant continuation and expansion of the effort. Cost also must be a consideration, whether the DoD student testing program were to consist of the ASVAB, a subsidized

commercial aptitude battery, or a combination of these or other instruments.

The final evaluation of efforts to supplement the Defense student testing program with commercial aptitude tests through School Year 1984 will require a careful consideration of: the demonstrated contributions of a subsidized commercial aptitude test, the effects of implementing modifications recommended for 1984, the needs of the recruiting commands and of the schools, and the overall costs and benefits of such a program.

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APPENDIX A

Sample Student Questionnaires, DOD-Sponsored Commercial Aptitude Testing Pilot Projects

1. Sacramento, Ca, Pilot Project, Spring 1981-----	71
2. American College Testing Pilot, Spring 1982-----	75
3. Psychological Corporation Pilot, Fall 1982 and Spring 1983-----	79

Sacramento, CA, Pilot Project
Spring 1981

ITEMS FOR UNIT #10 OF CPP

Funding the Career Planning Program as part of your school's guidance service has been provided all or in part by the Department of Defense. The purpose is to help you expand and strengthen your career and educational planning and to offer you the opportunity to become better acquainted with the educational and vocational opportunities available through a period of military service.

The Department of Defense offers a broad variety of educational and vocational training programs which help many young people develop their skills. These include programs that can lead to employment and, in some cases, to large educational benefits after completing two years or more of military service. ACT is willing to aid the communication between you and the Department of Defense but will do so only according to your instructions.

The following questions have been developed by the Department of Defense (DoD) and are being asked for the following reasons:

1. To get you thinking about some of the things that a tour of military service can provide.
2. To match your personal needs and wants with DoD opportunities, so that if you are interested, you can receive information about how DoD can help you meet them.

Please mark each of your answers in the Unit #10 section of your Career Planning Program answer folder.

1. Do you wish ACT to inform you about the Department of Defense's educational and vocational programs and benefits? (Answering yes to this item means this information will be sent to you in the mail; your name and CPP information will not be released to the Department of Defense).
 - A. Yes
 - B. No

ITEMS FOR UNIT #10 OF CPP

2. Do you wish ACT to send your CPP record to the Department of Defense so that Defense can contact you directly about programs and opportunities that are related to your needs and goals? (Answering yes to this item means that your name and CPP information will be released to the Department of Defense for this purpose).
 - A. Yes
 - B. No
3. How sure are you of your educational and/or vocational plans and goals?
 - A. Very sure
 - B. Fairly sure
 - C., Not sure
4. How does availability of financial support affect your plans to continue your education?
 - A. Intend to go on, finances not a problem
 - B. Intend to go on but will have to find financial support
 - C. Not going on because of lack of financial support
 - D. Not continuing, but for other reasons
5. Do you think you would benefit from a break in schooling before continuing on?
 - A. Yes
 - B. Undecided
 - C. No
 - D. Not planning to continue education

ITEMS FOR UNIT #10 OF CPP

6. What are your chances of finding a good job after high school?
 - A. Very good
 - B. Fair
 - C. Poor
7. How important is it to you to develop better work habits and improve your self discipline?
 - A. Very important
 - B. Somewhat important
 - C. Not important
8. How important is it to develop a special occupational skill shortly after leaving high school, such as computer programming or auto maintenance?
 - A. Very important
 - B. Somewhat important
 - C. Not important
9. Read the following statements and decide how many are true about current conditions of military service.

You can enlist for two or more years of active duty.

If you qualify, you can select the training and occupation you want before entering military service.

An enlisted person can take college courses while in service and can receive substantial funding for education and training after leaving service.

Large bonuses are offered for enlistment in certain military occupations.

The Department of Defense is one of the largest educational and training organizations in the world.

- A. One is true
 - B. Two are true
 - C. Three are true
 - D. Four are true
 - E. All five are true
10. What is your present level of interest in joining a military service for a few years or more after you finish high school?
- A. Very interested
 - B. Somewhat interested
 - C. Uncertain
 - D. Somewhat disinterested
 - E. Very disinterested
11. If the Department of Defense were not providing funds for this special use of the Career Planning Program, it would not have been given at this time as part of your school's guidance service. What do you think about the Department of Defense providing support for this program?
- A. Good idea
 - B. Don't care one way or the other
 - C. Poor idea
12. These questions were designed to get you thinking about military service opportunities and to make it possible for you to request information if you are interested. Do you feel positive or negative about answering these questions?
- A. Positive
 - B. Negative
 - C. Neither positive nor negative

American College Testing Pilot
Spring 1982

Questions for Unit 10 of the CPP

Funding for the Career Planning Program as part of your school's guidance service has been provided all or in part by a branch of the Department of Defense. The purpose is to help you expand and strengthen your career and educational planning and to offer you the opportunity to become better acquainted with the educational and vocational opportunities available through a period of military service.

The Department of Defense offers a broad variety of educational and vocational training programs which help many young people develop their skills. These include programs that can lead to employment and, in some cases, to large educational benefits after completing two years or more of military service. ACT is willing to aid the communication between you and the Department of Defense but will do so only according to your instructions.

The following questions have been developed by the Department of Defense (DOD) and are being asked for the following reasons:

- 0 To get you thinking about some of the things that a tour of military service can provide.
- 0 To match your personal needs and wants with DOD opportunities, so that if you are interested, you can receive information about how DOD can help you meet them.

Please mark each of your answers in Unit 10 section "Local items (Optional)" of your CPP answer folder. Although you may skip any question that you do not wish to answer, ACT can provide the most complete profile of you only if you answer every question.

- 1. Do you wish ACT to send your CPP record to the Army so that they can contact you directly about the programs and opportunities that are available in the Army? (Answering yes to this item means that your name and CPP information will be released to the Army for this purpose and an Army recruiter may contact you personally.)
 - A. Yes
 - B. No

2. Do you wish ACT to send you information about the Army's education and training programs and benefits? (Answering yes to this item means ACT will send information to you in the mail; your name and CPP information will not be released to the Army.)
 - A. Yes
 - B. No
3. How sure are you of your educational and/or vocational plans and goals?
 - A. Very sure
 - B. Fairly sure
 - C. Not sure
4. How does availability of financial support affect your plans to continue your education?
 - A. Intend to go on, finances not a problem
 - B. Intend to go on but will have to find financial support
 - C. Not going on because of lack of financial support
 - D. Not continuing, but for other reasons
5. After high school, how easy or difficult do you think it will be for someone your age to find a fulltime job in your area?
 - A. Almost impossible
 - B. Very difficult
 - C. Somewhat difficult
 - D. Not difficult
 - E. Don't know
6. Regarding your joining the military, would your parents be:
 - A. In favor of your joining
 - B. Against your joining
 - C. Neutral
 - D. Don't know, haven't discussed it with them

7. Has your guidance counselor discussed military career opportunities with you?
- A. Yes, has encouraged me to look into the military
 - B. Yes, has discouraged me from looking into the military
 - C. No, has not discussed this option with me
8. Are any of your close friends or relatives currently serving in any branch of the armed forces?
- A. Yes
 - B. No
9. Do you know that if you qualify, you can select the training and occupation you want before entering the military?
- A. Yes
 - B. No
10. Are you aware that individuals can take college courses while in the military and have 75% of their tuition paid by the military?
- A. Yes
 - B. No
11. Do you have any history of physical problems other than routine childhood illnesses?
- A. I have not had any physical problems
 - B. I have had physical problems, but not in the last year
 - C. I currently have physical problems requiring a doctor's care

12. What do you plan to do after you graduate from high school?
- A. Go to a 2-year college
 - B. Go to a 4-year college
 - C. Attend a vocational/technical school
 - D. Get a job
 - E. Join the military
 - F. Other
 - G. Undecided

**Psychological Corporation Pilot
Fall 1982 and Spring 1983
Student Questionnaire**

General Information for the Student

Funding for this testing with the *Differential Aptitude Tests* and *Career Planning Program* (DAT/CPP) as part of your school's guidance service has been provided by the Department of Defense. The purpose of the testing is to help you expand and strengthen your career and educational planning and to offer you the chance to become better acquainted with the educational and vocational opportunities available through a period of military service.

The Department of Defense offers a broad variety of educational and vocational training programs that help many young people to develop their skills. These include programs that can lead to employment and, in some cases, to substantial educational benefits after completing two or more years of military service. The Psychological Corporation is willing to assist you in communicating with the Department of Defense, but will do so only according to your instructions.

Questions To Be Answered By The Student

Following are some questions that have been developed by the Department of Defense. They are being asked for two reasons: (1) to get you thinking about some of the things that a tour of military service can provide, and (2) to permit a match of your personal needs and goals with Department of Defense opportunities, so that if you are interested, you can receive information about how the Department of Defense can help you meet those needs and goals.

Please answer all questions. Make no marks except in the spaces provided. Be sure your marks are heavy and black. Erase completely any answer you wish to change.

1. Do you want The Psychological Corporation to send your test scores to the Department of Defense so that the Department can contact you directly about educational and vocational programs, opportunities, and benefits that are related to *your* needs and goals? (Answering yes to this item means that your name and test information will be released to the Department of Defense for this purpose.)

☐ Yes

☐ No

If you answered Yes to Question 1 go to Question 3.
If you answered No, answer Question 2 before going to Question 3.

2. Do you want The Psychological Corporation to inform you about the Department of Defense's educational and vocational programs and benefits? (Answering yes to this item means this information will be sent to you in the mail; your name and test information will not be released to the Department of Defense.)

☐ Yes

☐ No

3. How sure are you of your educational and/or vocational plans and goals?

☐ Very sure

☐ Fairly sure

☐ Not sure

4. How does availability of financial support affect your plans to continue your education?

☐ Intend to go on, finances not a problem

☐ Intend to go on, but will have to find financial support

☐ Not going on because of lack of financial support

5. After high school, how easy or difficult do you think it will be for someone your age to find a full-time job in your geographical area?

- ☐ Almost impossible
- ☐ Very difficult
- ☐ Somewhat difficult
- ☐ Not difficult
- ☐ Don't know

6. Regarding your joining the military, would your parents be:

- ☐ In favor of your joining
- ☐ Against your joining
- ☐ Neutral
- ☐ Don't know, haven't discussed it with them

7. Has your guidance counselor discussed military career opportunities with you?

- ☐ Yes, has encouraged me to look into the military
- ☐ Yes, has discouraged me from looking into the military
- ☐ No, has not discussed this option with me

8. Are any of your close friends or relatives currently serving in any branch of the armed forces?

- ☐ Yes
- ☐ No

9. Do you know that if you qualify you can select the training and occupation you want before entering the military?

- ☐ Yes
- ☐ No

10. Are you aware that individuals can take college courses while in the military and have 75% of their tuition paid by the military?

- ☐ Yes
- ☐ No

11. Do you have any history of physical problems other than routine childhood illnesses?

- ☐ I have not had any physical problems
- ☐ I have had physical problems, but not in the last year
- ☐ I currently have physical problems requiring a doctor's care

12. What do you plan to do after you graduate from high school?

- ☐ Go to a 2-year college
- ☐ Go to a 4-year college
- ☐ Attend a vocational/technical school
- ☐ Get a job
- ☐ Join the military
- ☐ Other
- ☐ Undecided

APPENDIX B

Professional Articles Generated by PsyCor Project in Massachusetts

1. American Psychological Association-----	83
2. American School Board Association-----	85

June 1983

Tests get kudos in Keokuk, banned in Boston

By Kathleen Fisher
Staff Writer

A Department of Defense pilot program to recruit more "high quality" high school students through offering them two established commercial aptitude tests appears to be having mixed results.

The commercial vocational aptitude tests could supplement, but probably not replace, the DoD's Armed Services Vocational Aptitude Battery (ASVAB), which has been used in high schools since 1973.

Since last spring, the military has been paying American College Testing (ACT) to administer its Career Planning Program in the West and Midwest. A similar arrangement with the Psychological Corporation (Psych Corp) to give its Developmental Aptitude Test began last fall in New England.

Those involved with the project believe this is the first time an outside non-educational agency has sponsored administration of commercial school tests. This new relationship has posed some ethical and legal concerns.

Most of those concerns center on a 12-item questionnaire that is appended to the test. If the student agrees, the test results and completed queries about his or her attitude toward the military will be forwarded to the defense department. Critics of the program have suggested that the questions violate privacy laws and parts of the American Psychological Association's ethical code regarding conflict of interest and informed consent.

Under the assumption that the ASVAB will continue to be an im-

portant component of the military testing program — one version is administered to all new recruits so that they can be assigned to an appropriate specialty — two committees of outside psychometricians and other testing experts are attempting to revamp the ASVAB and the way DoD goes about marketing it.

Steve Sellman, a psychologist who is assistant director for accession policy (military personnel testing) in the defense secretary's office, explained that the DoD has been concerned that only about 11 percent of the high school students in the country are given the ASVAB. Its validity has been questioned, particularly its appropriateness for counseling students in regard to civilian careers. Some of that criticism has been warranted, Sellman said.

Image tarnished

The ASVAB's image problems were compounded in 1980, when it was discovered that all versions were miscalibrated. The error had allowed 250,000 unqualified recruits to enter the military in the previous four years.

The two commercial tests, usually referred to as the CPP and the DAT, are among only four or five that met the defense department's standards, Sellman said, and were selected through competitive bidding.

The carrot dangled before targeted high schools — the project was aimed at those which had not been offering the ASVAB — was free access to tests that would normally cost \$2,000 to \$3,000 to administer to a large high school class.

In return, they had to include 12

questions about the students' goals and knowledge of and interest in military careers.

"In the Midwest and West, it has worked pretty well, so we could say on the surface it appears to be a success," Sellman said of the program. "In New England, the enthusiasm has been less than overwhelming."

In fact, when the test was given in Cambridge, Mass., it created such a flap among parents and school board members that the administration agreed to destroy all the response sheets.

"There was a feeling among some people that we were helping the military," said Henry Lukas, headmaster at Cambridge Rindge and Latin High School, the only public high school in the Boston suburb. "Even when you say you're not going to release the information, there are people here who don't trust the military."

A choice

The first item on the accompanying questionnaire asks if students want the testing company to share the scores with the Department of Defense so the department can contact them. The second asks if they would prefer to have the company send them material about military programs without forwarding their name to the DoD. If they answer "yes" to the first question, they are asked to answer the other 10.

Such problems have not arisen in regard to the ASVAB, because each school makes a decision for all its students on whether the test scores will be released to DoD. Despite the

Cambridge experience, so far New England students have been much more willing to pass along their test results than have their western counterparts.

When the test was given in New England, from 25 to 45 percent of the students agree to have their names released to the DoD.

In the West and Midwest, where ACT has completed its part of the pilot study, only 15 percent of the students agreed to release their test results, although 40 percent indicated they would like to receive more information on the services.

The problem is that very few of the New England schools are offering the test package. The goal for each contract was to administer the test to 50,000 students. ACT was only about 150 students under that goal. But Psych Corp administered the test to only 3,000 students last fall, and is anticipating that only another 5,000 will take the DAT under the defense program this spring, a defense official said.

"When we started the pilot program," Sellman said, "we wondered if the problem was with ASVAB or with us. In New England, apparently it's us."

* Glenn Koocher, a member of the Cambridge School Committee, said his concern about the test centered on his belief that it was a violation of student and family privacy. The committee voted to impound the tests, and eventually destroyed the responses.

Sellman said the testing companies have encouraged school districts to send letters home to parents explaining the test and its purpose before it is given.

"They're quite openly interested in getting more names," said Jerome Doppelt, vice president and director of Psych Corp's psychological measurement's division. "There's nothing secretive about it." Lawyers for both parties involved in the contract examined the privacy question and concluded that there was no violation involved, he added.

Don Bersoff, APA general counsel, said the test seems to fall under restrictions imposed by the Family Educational Rights and Privacy Act. That law says that educational records cannot be shared with a third party without affirmative consent of the parents.

Ethical issues

Gerald Koocher, a Harvard psychologist and and Glenn Koocher's brother, said he is concerned that the DoD testing program created potential ethical violations of the APA Ethical Principles. Those include establishing relationships that may create a conflict of interest; actions that could diminish the civil rights of clients; exploitation of the trust and dependency between the psychologist and client; and failure to fully clarify the purpose of an assessment tool.

Leonard Goodstein, an APA ethics committee member, said that, as long as students are aware of who is sponsoring the test and retain the right not to fill out the questionnaire, "why is it unethical to help recruit for the military?"

"It would be different if we were recruiting them for prostitution or drug use. But the end result is not immoral." ■

THE AMERICAN SCHOOL BOARD JOURNAL

AUGUST 1983/VOL. 170 No. 8

A military recruiting strategy draws fire

Once upon a simpler time, the U.S. military could swell its ranks merely by slapping up some posters of a bearded old gentleman announcing, "I want you." As you might imagine, things are a tad more complicated these days.

Consider, for instance, what happened when the military tried a slightly softer sell involving schools: As part of a pilot program recently completed with the help of two well-respected testing firms, thousands of U.S. high school students took career aptitude tests at no cost to them or their school systems. All the students had to do was complete a special supplemental career survey and agree to have the test results passed on to a potential employer—the Department of Defense (D.O.D.).

The arrangement suited most of the schools involved just fine. Of course, no such arrangement is able to please everybody. In at least one school system, the D.O.D.-sponsored program raised quite a ruckus.

First, some background: Under a program begun two years ago, D.O.D. contracted with the American College Testing Co. (A.C.T.) of Iowa City and the Psychological Corp. of New York City (a division of Harcourt, Brace, Jovanovich) to test the career aptitude of 100,000 high school juniors in the West, Midwest, and New England. In the program (poetically slugged as Commercial Testing to Supplement D.O.D. High School Testing), participating students were asked to complete a supplementary 12-question survey prepared by D.O.D. The supplementary questions were to be answered when the students took either A.C.T.'s Career Planning Program Test or Psychological Corp.'s Differential Aptitude Test. (Both tests generally are acknowledged by school administrators to be excellent but expensive instruments, costing schools approximately \$5 per student.) The results of the

aptitude tests and the responses to the D.O.D. survey then would be sent to the Defense Department for recruiting purposes. In schools that chose to participate, students were required to take the three-hour aptitude test. The D.O.D. supplemental survey was optional, and students were advised that they could refuse to answer any or all of the military's questions and still receive results of the aptitude test—free.

According to the program's coordinator, Nancy Nieboer, currently adjunct research professor at the Naval Postgraduate School in Monterey, Calif., D.O.D. paid A.C.T. and Psychological Corp. approximately \$200,000 each (depending on the number of students tested) to administer the tests and the supplemental survey. The arrangement applied only to schools that were not already providing students the opportunity to take D.O.D.'s own aptitude and recruiting instrument, the Armed Services Vocational Aptitude Battery (ASVAB). In recent years, ASVAB has fallen out of favor with many students and school counselors, and D.O.D. has been worried about not reaching the kind of students it wants to recruit (read: high school graduates). Nieboer explains that the program was designed (1) to reach potential recruits of a high caliber through the commercial standardized tests and (2) to find a more successful means of access to potential recruits.

The D.O.D. survey that accompanied the commercial tests consequently included specific questions, such as the following, which come with the A.C.T. version: "How does the availability of financial support affect your plans to continue your education?"; "After high school, how easy or difficult do you think it will be for someone your age to find a full-time job in your area?"; "Regarding joining the military, would your parents be:

(A) in favor of your joining, (B) against your joining, (C) neutral, (D) don't know . . . ?"; "Are any of your close friends or relatives currently serving in any branch of the armed forces?"; and "Are you aware that individuals can take college courses while in the military and have 75 percent of their tuition paid by the military?"

The pilot program, however, didn't reach its goal of 100,000 students. Although A.C.T. tested more than 48,000 students in nine states (California, Oregon, Washington, Minnesota, Ohio, Indiana, Michigan, Kentucky, and Iowa), Psychological Corp. tested fewer than 10,000 students. Nieboer says Psychological Corp. had some difficulty finding eligible (and willing) participants, because "many of the schools in New England tend to be small, private schools that historically have not been interested in military involvement and recruiting." She says A.C.T.'s approach to administering the tests appears to have been more successful, perhaps in part because the testing company advised schools to arrange pretest information sessions and to involve parents in career planning sessions in conjunction with testing.

One site at which A.C.T. administered the D.O.D. program was Ann Arbor, Mich. In April 1982, parents of nearly 400 juniors at Pioneer High School received a two-page letter from school administrators explaining the school's imminent participation in A.C.T.'s Career Planning Program. The letter suggested several ways parents could become involved in the process, such as attending a parents' night at school. The letter also said, in part, "It is possible that the source of funding for the project will be the Department of Defense" and that "interested students" would be provided "the opportunity to request information about training and educational opportunities in the military services." The letter also said, "Such information would be provided only to students who request it. No information would be released unless the student authorizes a release." Reaction from students, parents, and teachers to the A.C.T. test and the D.O.D. survey was good, says Thomas MacKenzie, the Ann Arbor school system's director of guidance and testing. There were some community objections to D.O.D.'s involvement in the tests, but MacKenzie dismisses these. Says he: "I'd rather have the military invest in education than in guns or tanks."

Things didn't go so smoothly in

another school system. In fact, objections from students, parents, and community members to the involvement of 500 students at Cambridge (Massachusetts) Rindge and Latin High School were so strong that the school committee (board) ordered the test answer sheets destroyed before they ever reached the testing company. The objections focused on the fact that the test was being used for military recruiting. Critics also alleged the accompanying survey questions constituted an invasion of privacy. "Some parents complained students had to give certain personal information they didn't want the Defense Department to get hold of," says Henry Lukas, assistant headmaster of the school. Lukas notes that although students were informed of the test several days before it was given, their parents and the school committee were not told formally about the school's involvement in the D.O.D. pilot program. Complaints started coming in right after the test was administered, and articles in the local newspapers added to the controversy. School administrators held on to the answer sheets and, complying with community sentiment, tried to negotiate with Psychological Corp. to score and release the aptitude test results without sending any information to D.O.D. The testing organization refused, and the school committee directed school administrators to destroy all test answer sheets. About the furor, a project director at Psychological Corp. comments, "Confidentiality of the test results probably was an issue in Cambridge, because people might have felt that the Defense Department might be acting as Big Brother."

Nancy Nieboer characterizes the flap in Cambridge as "miscommunication between the testing corporation and school administrators." She says Cambridge Rindge and Latin was "the only location approached by either testing company that presented any problem." The pilot program is ended, but she says it's too early to tell how successful recruiting efforts have been.

Without conscription, D.O.D. has to find some way to entice bright young people into uniform. Because posters of Uncle Sam don't seem to have the drawing power they used to, slipping a few leading questions into a supplemental survey probably seemed to somebody like a wily way for the uniformed services to approach their recruit quotas. The efficiency of the tactic might seem slightly tenuous, but then, subtlety never has been the military's finest aptitude. □

APPENDIX C

Service Reports on Commercial Aptitude Testing Pilot Projects

1.	Department of the Army: Army Recruiting Command and MEPCOM-----	89
2.	Department of the Air Force: Air Force Recruiting Service-----	97
3.	Department of the Navy: Navy Recruiting Command and Marine Corps-----	103



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR PERSONNEL
WASHINGTON, DC 20310

REPLY TO
ATTENTION OF

DAPE-MPA-CS

8 MAR 1983

MEMORANDUM THRU ~~CHIEF OF STAFF, ARMY~~ *WTS*
~~ASSISTANT SECRETARY OF THE ARMY (M&PA)~~ *for* 4 MAR 1983
↓
FOR DEPUTY ASSISTANT SECRETARY OF DEFENSE
(MILITARY PERSONNEL & FORCE MANAGEMENT)

SUBJECT: Commercial Testing to Supplement the DoD High School
Testing Program — INFORMATION MEMORANDUM

The following information is submitted in response to your 7 Dec 82 memorandum (TAB A):

a. Military Entrance Processing Command (MEPCOM).

(1) Number of juniors/seniors tested with ASVAB during school year 1980-81 in each high school participating in the commercial testing pilot program is at TAB B.

(2) List for school years 1981-82 and 1982-83 is at TAB C.

(3) List of schools participating in the pilot program but not on file in the MEPCOM computer is at TAB D.

(4) Reactions of schools participating in the commercial testing program cannot be addressed since the only action required by MEPCOM was to provide lists of schools for testing.

(5) MEPCOM is gathering information from Military Entrance Processing Stations in areas that participated in the pilot program. Recommendations will be made in the final evaluation due in September 1983.

b. United States Army Recruiting Command (USAREC).

(1) Assessment of the value of the program could not be made at this time since the results from fall testing in New England were not available in sufficient time to determine the number of leads, appointments, or contacts.

(2) At the midway point in reporting results of the testing, there does not appear to be any firm positive or negative reaction to the program. The comments cover a wide spectrum as indicated below:

SUBJECT: Commercial Testing to Supplement the DoD High School
Testing Program -- INFORMATION MEMORANDUM

(a) Strongly recommend that the DAT be discontinued.

(b) Recommend expanding the CPP to the 83-84 school year as a means of determining effectiveness.

(c) It appears that there is some reluctance on the part of school administrators and counselors to use ASVAB because it denotes Armed Services and is viewed strictly as a military test. However, when coupled with a commercial test, ASVAB credibility is enhanced and is considered a viable source for student area exploration.

(d) One routine rejection of ASVAB is timing relative to scheduling it into school programs. The supplemental civilian testing surfaced similar comments, but this time the rejection of the ASVAB was based on a DoD sponsored competitor test: For example, several schools were willing to participate in the DoD sponsored CPP testing program, but in so doing, they would not have time to schedule ASVAB.

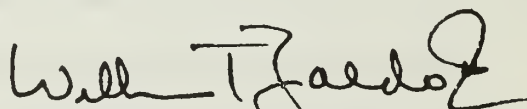
(e) While the preponderance of negative comments seems to have originated from New England, it appears that there are a number of positive reactions coming from the Midwest.

(f) Reactions in Minnesota were favorable, with most schools supporting the idea of DoD sponsoring a commercial test in a period of diminishing state and federal funds.

(g) Recruiters in the Midwest indicate that the information included in the report for use by recruiters provided good insight on prospective applicants, and in some cases, the commercial test was the instrument that permitted increased access to schools.

(3) More accurate statistics and specific comments relative to the impact of commercial testing on the recruiting mission are expected to be available for the September 1983 report.

FOR THE DEPUTY CHIEF OF STAFF FOR PERSONNEL:



WILLIAM T. ZALBO, III
Colonel, GS
Chief, Accession Division

Enclosures

Mr. Ruberton/50836
Typed by: N. DeAtley



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR PERSONNEL
WASHINGTON, DC 20310

REPLY TO
ATTENTION OF

DAPE-MPA-CS

21 OCT 1983

MEMORANDUM THRU ~~CHIEF OF STAFF, ARMY~~ ^{21 OCT 1983} ~~WILLIAM T. CALDO, III, Chief, DAPE-MPA~~
ASSISTANT SECRETARY OF THE ARMY (M&RA)

FOR DEPUTY ASSISTANT SECRETARY OF DEFENSE
(MILITARY PERSONNEL & FORCE MANAGEMENT)

SUBJECT: Commercial Testing to Supplement the DOD High School
Testing Program -- INFORMATION MEMORANDUM

The following additional information is submitted in response to your 7 Dec 82 memorandum (Tab A). An interim reply was forwarded on 8 March 1983.

a. Military Entrance Processing Command (MEPCOM).

(1) Number of juniors/seniors tested with ASVAB during school years 1980-81, 1981-82, 1982-83 in each school participating in the commercial testing pilot program was submitted in the interim report.

(2) Responses to other specific questions required from MEPCOM are at Tab B.

(3) No specific recommendations regarding future use of commercial testing to supplement the high school ASVAB were submitted since the questions and answers at Tab B address MEPCOM's observations.

b. United States Army Recruiting Command (USAREC).

Responses to the specific requirement to submit reactions of schools participating in the DOD-sponsored commercial testing program, District Recruiting Command reactions, and recommendations regarding future use of commercial testing to supplement the high school ASVAB are at Tab C.

FOR THE DEPUTY CHIEF OF STAFF FOR PERSONNEL:

Enclosures

WILLIAM T. CALDO, III
Colonel, GS
Chief, Accession Division

QUESTIONS AND ANSWERS ON COMMERCIAL TESTING

- a. Are schools more receptive to information about the military as a career option as a result of the commercial testing program?

Schools seem to be evenly divided on receiving military information. Some want to receive this information, others could care less. Students appear to be more receptive after taking the commercial test; however, it is not known if it is because of the test or economic conditions at this time.

- b. Are schools more or less interested in using the Armed Services Vocational Aptitude Battery (ASVAB) after using the commercial instrument?

Schools are less interested in using the ASVAB after using the commercial test.

- c. Would the schools prefer using the commercial test rather than the ASVAB?

Schools were divided on the use of the commercial test versus the ASVAB. Some responded that they prefer the commercial test because it appears to have no connection with the armed services.

- d. Would the schools consider using both DOD sponsored commercial tests and ASVAB?

The majority of schools contacted would not consider using both the ASVAB and the commercial test because of time constraints.

- e. Would the schools prefer having no testing sponsored by DOD?

Most schools prefer DOD sponsored tests and would not consider removing them from their testing program.

- f. Has the administration of this commercial instrument caused any turbulence in MEPS areas of responsibility that has had any detrimental impact on ASVAB testing?

Most MEPS feel that the commercial instrument has had some adverse effect on its ASVAB programs. It has become more difficult to promote the ASVAB in those schools that took the commercial test.

- g. Have any school in MEPS areas of responsibility cancelled ASVAB testing because the commercial instrument was not offered to them?

No schools have cancelled ASVAB testing because they have not been offered the commercial test. Several schools have threatened cancellation because other schools in its school district were offered the test and they were not. MEPS personnel and recruiters were able to overcome this threat and administer the ASVAB as scheduled.

- h. Has any school declined to schedule ASVAB testing because they have not been offered the commercial test?

No schools have declined to schedule the ASVAB because they were not offered the commercial test.

- i. Recruiting district commanders in Indiana have expressed concern that a lack of followup by ACT may cause a decrease in the value of the program.

NOTE:

MEPCOM conclusions are that the program has merit but should be evaluated by a disinterested outside civilian agency for recommendations on how to proceed with such a program.



DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY RECRUITING COMMAND
FORT SHERIDAN, ILLINOIS 60037

USARCRO-RS

29 SEP 1983

SUBJECT: Commercial Testing to Supplement the DOD High School Testing Program

HQDA (DAPE-MPA-CS)
WASH DC 20310

1. Reference letter, DAPE-MPA-CS, HQDA, 13 Dec 82, SAB.
2. In compliance with the request in the referenced letter, the following information is provided.
 - a. Results of Differential Aptitude Test (DAT) testing by the Psychological Corporation in New England:
 - (1) Though the statistics from the field were not consistent with the contractor's report on the number of students tested and number of students authorizing direct contact, the data did show that a total of 732 students (of the 6,830 tested) were contacted by recruiters. Of that number, 218 (30 percent) appointments were conducted and 7 (3 percent) contracts resulted (See inclosed consolidated DAT results).
 - (2) School reactions to the program: Most of the schools were favorable to the program, with some expressed reservation concerning the completion of the survey prior to the test (i.e., they wanted the test, but perhaps not the military contact). This is not surprising, considering that one reason for not utilizing the ASVAB is probably the perceived military connection. While some schools expressed a desire to continue with the DAT program, only a few indicated they would like to participate in the ASVAB program.
 - (3) DRC reactions to the program: Mixed reactions were generated by the program. Some said discontinue completely, others that it could be expanded. Problems expressed dealt with lack of communication/coordination with the contractor and the delayed receipt of results and leads. Most felt that the information contained in the survey was very helpful, but it did not seem to translate into contracts - it just made the telephonic contact more comfortable.
 - (4) Recommendations for the program: Commercial testing through the Psychological Corporation seems to have been less than a resounding success due to the low numbers tested and that testing was essentially done in schools that had a low priority to the recruiting force. The testing did not, apparently, have an appreciable effect on turning the situation around in New England, at least in terms of generating increased access to difficult schools

29 SEP 1985

SUBJECT: Commercial Testing to Supplement the DOD High School Testing Program

or generating contracts. That it provided leads not previously available, is true, but those leads were not converted into contracts. It may have been somewhat beneficial image-wise, but perhaps the money spent could have been utilized in other public relations type events that would be just as beneficial in this respect.

b. Results of Career Planning Program (CPP) testing by American College Testing (ACT) in the midwest/west.

(1) Again, statistics from the field were not consistent with the contractors report in numbers tested or leads generated. Under the CPP program, 1,796 contacts were made from the leads provided, 484 (27 percent) appointments were conducted, 41 (8.5 percent) contracts resulted. Considering the actual number of students tested in the Army part of the program (approximately 24,500) the contract to tested ratio is about .002 (See inclosed consolidated ACT/CPP results).

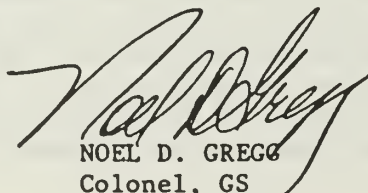
(2) School reactions to the program: Most schools reacted very favorably to the program. ACT seems to have a good reputation and credibility, and counselors seemed to like CPP. California schools were somewhat lukewarm, but not negative. There was one comment on the need for better post-test followup.

(3) DRC reactions to the program: Again, reactions to the CPP program were favorable. One mention was made of a perceived low correlation for the predicted AFQT and that the program, perhaps, was not necessary in a state where ASVAB was doing well. However, there was not real expressed objections and ACT seems to have done an effective job of communicating/coordinating the program, after the Minnesota experience. Not all DRCs were aware of how many had tested in their area (reported 15,000 versus nearly 25,000) and this should be cleared up, but most knew the leads generated. Recruiters liked the results received, though some comment was made on low number of students actually requesting contact.

(4) Recommendations for the program: Some recommended continuing this program only for schools not ASVABing; some said expand it; but all said continue it! The initial results are favorable and certainly the contractor has done a creditable job. Improvements/refinements are anticipated this year in the program. However, there is the possibility, at least in the field, that CPP is being viewed as a replacement for ASVAB and that, therefore, it is competing. This factor could have some adverse effect, because improvements in the ASVAB program are being made. Considering that only 41 contracts resulted (and half of those were in Minnesota, where a great number of schools tested had also been using the ASVAB), it may be that the commercial testing program is not totally cost effective.

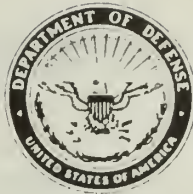
FOR THE COMMANDER:

2 Incl
as



NOEL D. GREGG
Colonel, GS
Director, Recruiting Operations

DEPARTMENT OF THE AIR FORCE
WASHINGTON 20330



OFFICE OF THE ASSISTANT SECRETARY

3 March 1983

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY (MILITARY PERSONNEL AND
FORCE MANAGEMENT) OFFICE OF THE ASSISTANT SECRETARY
OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS)

SUBJECT: Commercial Testing to Supplement the DoD High School
Testing Program (Your Memo, December 7, 1982) -
INFORMATION MEMORANDUM

Attached are the interim data and reactions requested for evaluation of the commercial testing program. Comprehensive data concerning prior and current Fiscal Year contracts plus leads, appointments and contracts obtained from commercial testing are not available for this report. We anticipate having this information for our final report, Sept 30, 1983.

Overall, we believe the current favorable recruiting environment makes proper evaluation of commercial testing difficult. The initial reactions of recruiting personnel and schools involved in the pilot program are favorable. However, the lack of telephone numbers for commercial test leads was identified as a limitation relative to other lead lists, e.g., the high school ASVAB. We appreciate the opportunity to participate in this evaluation.

A handwritten signature in cursive script, reading "Karen R. Keesling", is positioned above the typed name.

KAREN R. KEESLING
Deputy Assistant Secretary
(Manpower Resources and Military Personnel)

1 Attachment
Specific Responses

SPECIFIC COMMENTS, COMMERCIAL TESTING PROGRAM (INTERIM REPORT, FEB 83)

1. Number of seniors contracted by each Service in FY 1981, 1982 and 1983 (active and delayed entry) in each high school participating in the high school testing program:

Headquarters, USAF Recruiting Service is unable to provide this information for the interim report. They are working with individual recruiting offices to obtain specific data by high school for the final report.

2. Number of leads appointments and contracts obtained through the commercial testing program in each participating school:

Again, this information is not available in the requested format. We do have the following data available:

<u>Squadron</u>	<u>Location</u>	<u>Recruiter Reports</u>	<u>Schools Tested</u>
3554 RS	Selfridge, MI	1,316	47
3561 RS	Seattle, WA	77	6
3562 RS	Norton AFB, CA	183	10
3566 RS	Travis AFB, CA	12	1
3569 RS	Los Angeles, CA	33	7
TOTAL		<u>1,621</u>	<u>71</u>

Since the 3554 Recruiting Squadron received 82% of our recruiter reports from 66% of the schools tested, they have had the most experience with the pilot test. Of the 1,316 reports they received, 413 were determined to be good leads (age and mentally qualified, complete addresses, etc.). From these 413, they secured 35 appointments which resulted in 10 contracts. No other squadron had this data available for the interim report.

3. Reactions of schools participating in the DoD-sponsored commercial testing program:

(a) 74% of the schools are more receptive to information about the military.

(b) 63% of the schools are less interested in ASVAB use; 37% more interested.

(c) 87% prefer commercial tests to ASVAB; 13% prefer DoD-sponsored commercial tests in combination with ASVAB; 0% prefer no DoD testing at all.

4. District/squadron recruiting command reactions to the commercial testing program and its value to recruiting:

(a) 58%, extremely valuable.

(b) 21%, somewhat valuable.

(c) 17%, no opinion.

(d) 0%, somewhat worthless.

(e) 4%, extremely worthless.

5. Recommendations regarding future use of commercial testing to supplement the high school ASVAB:

- (a) 71%, definitely should be continued.
- (b) 12%, probably should be continued.
- (c) 4%, undecided/no opinion.
- (d) 8%, probably should not be continued.
- (e) 4%, definitely should not be continued.

6. Additional Comments:

(a) Recruiting Service personnel indicated that the number of appointments and/or contracts may not properly reflect the success or failure of this pilot study. Since leads were received when available jobs were extremely limited and the recruiting environment favorable, their value may not be as apparent as during more difficult recruiting periods.

(b) Commercial test leads have been criticized because phone numbers were not supplied and establishing personal contact proved difficult. As a result, commercial leads were rated inferior to leads from ASVAB lists which do provide phone numbers.



DEPARTMENT OF THE AIR FORCE
WASHINGTON 20330

OFFICE OF THE ASSISTANT SECRETARY

27 October 1983

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY (MILITARY PERSONNEL AND FORCE
MANAGEMENT), OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
(MANPOWER, RESERVE AFFAIRS AND LOGISTICS)

SUBJECT: Commercial Testing to Supplement the DoD High School Testing
Program (Your Memo, December 7, 1982) - INFORMATION MEMORANDUM

Attached are the final data for evaluation of the pilot program. Per discussion between the sponsoring Services, the Military Entrance Processing Command (MEPCOM), and Dr. W. S. Sellman, OASD(MRA&L)(MP&FM), Accession Policy on 28 July 1983, data pertaining to the number of seniors by high school is not provided. Instead, we have furnished a monthly breakout of total and age-qualified leads who requested additional information and/or recruiter contact through our opportunity center, which should be more meaningful.

Overall, we believe the current favorable recruiting environment makes comprehensive evaluation of commercial testing difficult, particularly when attempting to measure new contracts which resulted from this program. However, our decision to continue funding the program in FY84 is indicative of our positive reaction to this initial effort. We believe the increased receptiveness of participating schools to military recruiters, which was documented in our interim response, will provide long-term dividends as the economy improves and recruiting becomes more difficult.

KAREN R. KEESLING

Principal Deputy Assistant Secretary
(Manpower, Reserve Affairs & Installations)

1 Attachment
Specific Comments

SPECIFIC COMMENTS, COMMERCIAL TESTING PROGRAM (FINAL REPORT, OCT 83)

1. As indicated in the interim report, 3 March 1983, the Air Force received 1,621 recruiter reports in the fall of 1982, which were 14 percent of the total tested (11,516) in the spring of 1982. In the spring of 1983, we received 2,562 recruiter reports, which were 20 percent of those tested (12,810) in the fall of 1982. Total applicants tested for the Air Force were 24,326.

2. Of the 24,326 students tested, ACT sent information packages to 4,287 (37 percent of spring 1982 tests) on 8 September 1982 and 6,020 (47 percent of fall 1982 tests) on 17 March 1983. The total number of information packages sent (10,307), represented 42 percent of all Air Force applicants tested. Mailback cards asking for additional information and/or recruiter contact have been received by our opportunity center as follows:

<u>DATE</u>	<u>AGE QUALIFIED</u>	<u>TOTAL CARDS</u>
Oct 82	228	290
Nov 82	242	308
Dec 82	249	316
Jan 83	253	320
Feb 83	255	322
Mar 83	455	645
Apr 83	662	958
May 83	729	1043
Jun 83	737	1053
Jul 83	746	1067
Aug 83	750	1073
Sep 83	<u>756</u>	<u>1080</u>
TOTAL	6062	8475

3. The 8,475 students who have responded to the opportunity center represent 82 percent of those sent information packages by ACT. The 6,062 age-qualified responses represent 72 percent of the total mailback and we assume the additional 28 percent are, or shortly will be age-qualified, as they were all juniors in high school at the time of testing.



DEPARTMENT OF THE NAVY

OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
WASHINGTON D C 20350

8 NOV 1983

MEMORANDUM FOR THE DEPUTY ASSISTANT SECRETARY OF DEFENSE (MRA&L) (MP&FM)

Subj: Commercial testing to supplement the DOD high school testing program

Ref: (a) OASD(MRA&L) memorandum of 7 December 1982

Encl: (1) Navy Recruiting Command and Marine Corps final report on commercial testing to supplement the DOD high school testing program

Reference (a) requested a final report concerning the pilot project to supplement the high school Armed Services Vocational Aptitude Battery (ASVAB) with commercial tests.

Enclosure (1) provides data acquired by the Navy (TAB A) and Marine Corps (TAB B).

Neither the Navy nor Marine Corps recruiting organizations consider pilot program results sufficiently conclusive thus far to permit substantive appraisal of the program as a prospect-qualifying or lead-generating device. Because Navy Recruiting Command was not involved in FY83 testing conducted under American College Testing (ACT) auspices, it prefers to await results and analysis of the FY84 program administered by that contractor before committing further to the supplementary effort. Marine Corps will continue to participate in the commercial testing program through FY84.

Both the Navy and Marine Corps will pursue aggressive marketing of the high school ASVAB to schools not currently participating in that or the supplementary commercial program. Navy Recruiting Command is concerned, however, that increasing acceptance of and apparent preference for the commercial test by user schools may hinder ASVAB marketing initiatives once more schools are aware of the supplementary program's existence.

It is recommended that commercial testing be reviewed in late FY84 and, if continuation is not elected, that funds allocated to its support be dedicated to upgrading and improvement of the high school ASVAB program.

Respectfully,

W. H. LINDAHL
Acting Deputy Assistant Secretary
of the Navy (Manpower)

APPENDIX D

Military Entrance Processing Stations (MEPS): By Group

1.	CPP and DAT Pilot MEPS -----	107
2.	MEPCOM Centralized Marketing Pilot Program MEPS -----	109
3.	HumRRO-Selected Centralized Marketing Control MEPS-----	111

CPP and DAT Pilot MEPS

CPP Pilot Group

Cincinnati, Ohio
Cleveland, Ohio
Des Moines, Iowa
Detroit, Michigan
Indianapolis, Indiana
Los Angeles, California
Minneapolis, Minnesota
San Diego, California

DAT Pilot Group

Albany, New York
Boston, Massachusetts
Manchester, New Hampshire
New Haven, Connecticut
Portland, Maine

MEPCOM Centralized Marketing
Pilot Program MEPS

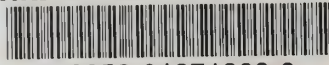
Albany, New York	New York City, New York
Atlanta, Georgia	Newark, New Jersey
Chicago, Illinois	Oakland, California
Denver, Colorado	Oklahoma City, Oklahoma
Little Rock, Arkansas	Salt Lake City, Utah
Los Angeles, California	San Antonio, Texas
Milwaukee, Wisconsin	Spokane, Washington
Minneapolis, Minnesota	St. Louis, Missouri
Montgomery, Alabama	

HumRRO-Selected Centralized
Marketing Control MEPS

Baltimore, Maryland	Miami, Florida
Boston, Massachusetts	Nashville, Tennessee
Cleveland, Ohio	Philadelphia, Pennsylvania
Columbus, Ohio	Pittsburgh, Pennsylvania
Detroit, Michigan	Portland, Oregon
Fresno, California	San Diego, California
Ft. Jackson, South Carolina	Seattle, Washington
Jackson, Mississippi	Syracuse, New York
Jacksonville, Florida	

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